REPORT ON THE AGRICULTURAL COMPARATIVE ECONOMIC ADVANTAGE WORKSHOP

For REDSO/ESA's Strategic Objective # 623-002-01:
Increased Use of Critical Information
By USAID and Other Decision-Makers in the Region

Rural and Agricultural Incomes in a Sustainable Environment
(RAISE)
IQC No. PCE-1-00-99-00001-00, Task Order 805:
Regional Trade Analytical Agenda
implemented by TechnoServe-Kenya and ARD

Submitted to:

USAID/REDSO/ESA
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ARD-RAISE

REPORT ON THE AGRICULTURAL COMPARATIVE ECONOMIC ADVANTAGE WORKSHOP

by

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Mrs. Agnes Chaonwa

of

FETA Services (Consultancy)

Presented to
USAID/REDSO/ESA

For

USAID/REDSO/ESA's Strategic Objective # 623-002-01:

Increased use of critical information by USAID and other decision-makers in the region

under the Rural and Agricultural Incomes with a Sustainable Environment (RAISE)
Contract No. PCE-I-00-99-00001-00, Task Order 805:
Regional trade Analytical Agenda (RTAA)
Implemented by TechnoServe-Kenya and ARD

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EXECUTIVE SUMMARY

The Agricultural Comparative Economic Advantage Workshop was held on 30 November 2000 in Harare. Fourteen participants attended the workshop: seven represented the public sector, three the private sector and three the nongovernmental organizations (NGOs) and donor agencies. The workshop provided a forum for the dissemination of two reports:

1. *The Evaluation of Competitiveness of Different Farming Communities in Producing a Variety of Agricultural Commodities in Zimbabwe.*

2. *Informal Cross-Border Trade between Zimbabwe with South Africa and Botswana.*

The first study report focused on the comparative economic advantages between farming communities and between a variety of agricultural commodities (crops) in Zimbabwe. This study's analysis was based on the domestic resource cost (DRC) ratio technique. It was revealed that different enterprise/crop performance depends on

- geographical location relative to markets for both inputs and outputs, and

- agro-ecological suitability of the crops and infrastructure development in the area.

Zimbabwe has three farming sectors, namely large-scale commercial (LSC), small-scale commercial (SSC) and communal areas (CA), as it has five natural regions (NR). The study findings can assist farmers and policymakers in decision-making for maximizing use of scarce resources.

The second presentation focused on the preliminary analysis and findings of Informal Cross-Border Trade (ICBT). This attended to Zimbabwe's informal trade with South Africa and Botswana based on data collected at the Beitbridge and Plumtree borders, respectively. It highlighted information on informal traders/profile, goods that traders handle, and other linkages such as transportation, the source of foreign currency as well as exchange rates.

Both studies are closely related because they eventually focus on food security in Zimbabwe and the Southern African region.

Proceedings of the workshop reveal the comments and recommendations made by the participants. Further work was recommended by participants with varying degrees of urgency and detail provided resources are available.

Agricultural Comparative Economic Advantage: Recommendations

- It was argued that traditional crops, e.g., millet, yams, cassava and sweet potatoes, were alternatives that should be encouraged for food security and because they withstand droughts. The Consumer Council of Zimbabwe (CCZ) had advanced this concept. Market research and consumption promotions were lacking in addition to available processing techniques and desire for palatability, and speedy preparation similar to the maize meal processing and food

preparation. There are specific natural regions that are ecologically suitable for these crops and would do better growing these than maize and others. Efforts should be made to improve the competitiveness of some traditional crops like millets and yams by developing markets first; thus, a market study needs to be undertaken.

- Research on drought tolerant crops undertaken at the Matopos Research Station in Zimbabwe under the SADC/ICRISAT auspices has identified several varieties of millets that need promotion for both human and livestock consumption. The slow take off/acceptance and/or adoption by farmers has retarded the expansion of these crops. Furthermore, government budgets for agricultural extension for these crops leaves a lot to be desired. Some consumption patterns and packaging need to be examined with a view to address them for acceptance by farmers and consumers if these crops are to be competitive in the food markets. Constraints hindering the development of some identified competitive crops should be looked into.

- Although the study results were convincing in terms of the DRC analysis technique, they may sound abstract if presented to farmers in that form. The language and techniques may need to be simplified for farmers to understand the findings in respect to competitiveness of the crops they produce. Some ranking/hierarchy arrangements may be attempted. Farmers easily understand the concept of value-adding and opportunity cost. The study results need further analysis and fine-tuning to make them palatable to farmers. This would involve a multi-objective ranking which takes into consideration other values like food security, crop rotation and drought tolerance.

- Farming operates in a dynamic environment in which production techniques, crop combinations and consumers' tastes change, among other things. An update of information and farming performances is critical from time to time for future generations of farmers to adopt current and relevant practices and enterprise combinations. Therefore, the study should be replicated over a period of time and should include more crops as well as livestock.

- HIV/AIDS is negatively impacting farming communities. The young and most productive are the majority of HIV/AIDS victims. Over time, farming performance will suffer due to the low level of farm mechanization and labor-intensive nature of current farming methods, therefore, there is need to look at the impact of HIV/AIDS on competitiveness with a view to establishing current potential and necessary improvements in farming.

Informal Cross-Border Trade: Recommendations

- It is public knowledge that some goods, especially fabrics, are made in Zimbabwe and exported to Botswana or South Africa and then imported back into Zimbabwe by both informal and formal traders (e.g., blankets and clothes). The labels on these items show the Zimbabwean company that made them. The reasons for these are currently speculative but include the psychological status of having imported goods; the best qualities are exported and therefore not available domestically; the companies would want to earn foreign currency for themselves since they will retain some portion of it and so forth. Because of this, it would be

good to establish why some goods exported from Zimbabwe may be imported back into the country, (i.e., establish perceived advantages).

- Informal traders import varieties of goods into Zimbabwe from Botswana and South Africa. Some of the goods compete with Zimbabwean even when they could be of inferior quality or rejects from the country of origin. The shops patronized by Zimbabweans in either South Africa or Botswana are well known to both and could be stocked with inferior quality goods for Zimbabwe. It is therefore necessary to verify the allegation that South Africa and Botswana may be dumping substandard goods into Zimbabwe through ICBT. This would help to establish whether or not any dumping by the two countries is planned or accidental.

- The ICBT study was not able to meaningfully establish Zimbabwean exports to South Africa or Botswana. First, secure permits were required to observe these exports from the importing countries border posts. This required time to consult the border posts and agree on acceptable procedures. Negotiations and/or correspondence would secure this. This would require stationing enumerators into neighboring countries. The formal market prices of observed goods need to be collected and compared with the informal traders' prices in order to establish the gap between the two for both the Zimbabwe exports and imports.

  Some of the private firms at Zimbabwean borders were not prepared to give information to the enumerators without the approval of their head offices which could be in Harare or Bulawayo and this required plenty of lead time to secure the approval and release of the information. It should also be noted that communication between the head office and border offices is often slow and poor.

  The informal traders are very sensitive to questions from strangers. Over time, with familiarity, they are more willing to give information. This would require that an enumerator be stationed at the respective border post on both sides for some time. The trust must also include that of the customs and public officers. Qualities of imports and exports could then be established or assessed and compared. These gray areas can be addressed by more information over time.

- The issue of corruption was raised in respect to all borders. It was argued that the informal and formal traders know and/or participate in getting their wares through at lower tariffs. There is a deliberate under-declaration of goods, misclassification of goods, and sometimes outright corruption. Furthermore, some huge cargoes from formal traders cross borders without hassles because of prearrangements between the trader and the border authorities. These allegations, it was argued, must be verified. Some argued that the informal traders' business is smaller than the formal trade business involved in corruptive practices, because some of the people involved hold high public positions in society and some food-related goods are corruptly crossing borders and may cause food insecurity. However, it was cautioned that a study into this is likely to be risky and has its own peculiar hurdles. It was noted that the International Transparency Agency and the National Economic Consultative Forum in Zimbabwe should be informed of the study if it happens, and seek their involvement, in one form or the other (e.g., finance, guidance and/or participation in the study).

Specifically there is need for a study to estimate the effect of corruption on the economy. The study may start at the subsector level and then expand to the rest of the economy.

These recommendations require some follow-up in the form of study proposals and funding in order for the conclusions to be meaningful and are therefore open to all stakeholders.

It was considered that these recommendations would buttress current food security discussions and future food security strategies.

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ACRONYMS AND ABBREVIATIONS

ACEA	Agricultural Comparative Economic Advantage
AEZ	Agro-Ecological Zone
AGRITEX	The Policy and Planning Division of the Ministry of Lands, Agriculture and Rural Resettlement
CA	Communal Areas
CCZ	Consumer Council of Zimbabwe
COMESA	Common Market for Eastern and Southern African Countries
DRC	Domestic Resource Cost
EPC	Effective Protection Coefficient
ICBT	Informal Cross-Border Trade
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
LSC	Large-Scale Commercial
NGO	Nongovernmental Organization
NPC	National Protection Coefficient
NPE	Net Policy Effect
NR	Natural Regions
PAM	Policy Analysis Matrix
RA	Resettlement Area
RCR	Resource Cost Ratio
RCSA	Regional Center for Southern Africa
SADC	South African Development Community
SME	Small- to Medium-scale Enterprise
SSC	Small-Scale Commercial
USAID	United States Agency for International Development

1. INTRODUCTION/PREAMBLE

The one-day workshop was facilitated by Feta Services (Consultancy) and funded by the United States Agency for International Development (USAID) through ARD, Inc.

The workshop provided a forum for the dissemination of a study report on *The Evaluation of Competitiveness of Different Farming Communities in Producing a Variety of Agricultural Commodities in Zimbabwe* to stakeholders for their appreciation and input. The study was carried out in 1997 by the University of Zimbabwe's Department of Agricultural Economics and Extension in collaboration with the Ministry of Lands and Agriculture, as part of the USAID project, Regional Agricultural Trade and Changing Comparative Advantages in Southern Africa. The project was coordinated by the University of Swaziland's Center of Agricultural Research and Policy Analysis.

In addition, Feta Services also presented findings of a study on *Informal Cross-Border Trade between Zimbabwe with South Africa and Botswana*, carried out during the period June to September 2000.

Invitations to the workshop were extended to various stakeholders in the public and private sectors as well as farmers' organizations, NGOs and donor agencies in Zimbabwe. There were 14 participants who attended the workshop, representing 13 organizations.

Dr. Robbie Mupawose chaired this one-day workshop, which started at 0900 and ended at 1500.

2. OPENING REMARKS

Mrs. Zitsanza read opening remarks on behalf of Dr. V. Hungwe, the Acting Permanent Secretary in the Ministry of Lands, Agriculture and Rural Resettlement, who could not attend the workshop. The contents of the speech are reproduced in Annex C, highlights of which include the following:

- Zimbabwe is a member of the South African Development Community (SADC) and Common Market for Eastern and Southern African Countries (COMESA), and findings of the studies under review provide useful inputs into policy review and formulation on issues pertaining to regional integration.

- The workshop is important for effective consultation and cross-fertilization of ideas due to the participation of a wide spectrum of stakeholders.

- Zimbabwe went through the process of trade liberalization during the 1990s, which has resulted in the liberalization of the agricultural sector, decontrol of the domestic market, price liberalization and the removal or reduction of barriers to external trade. This has implications on comparative economic advantage as farmers have to look for markets and negotiate prices for their produce.

- The informal sector is playing an increasingly important role in Zimbabwe's economy through employment creation, income generation and food security.

- The ICBT study can help the government in evaluating the role of informal trade in the economy by weighing costs against benefits associated with this activity.

The Secretary concluded by thanking USAID for funding the project, the University of Swaziland for including Zimbabwe on the research agenda, authors of the reports under review, Feta Services for facilitating the workshop and participating stakeholders for positively responding to the invitation to the workshop.

Mr. Scott Allen, from the USAID Regional Center for Southern Africa (RCSA) in Gaborone, Botswana made some remarks on the project. He mentioned that the studies were undertaken to assist in the development of the agricultural sector. Donors have spent US$4 billion on agricultural research and extension in Sub-Saharan Africa with very little to show for that investment. The RCSA, working with regional stakeholders, has a variety of programs and activities designed to promote regional integration in Southern Africa.

Both studies have implications on food security as traders move goods from countries with comparative advantage to those without, thereby assuring availability while generating incomes to ensure accessibility.

Responding to these project remarks, the Chairman lamented the fact that people in the region spent too much time on politics rather than economics.

3. REPORT ON "THE EVALUATION OF COMPETITIVENESS IN DIFFERENT FARMING COMMUNITIES IN PRODUCING A VARIETY OF AGRICULTURAL COMMODITIES IN ZIMBABWE"

The paper was copresented by Dr. Sukume and Mrs. Zitsanza, having been written by a four-member team from the University of Zimbabwe's Department of Agriculture Economics and Extension in collaboration with the Ministry of Lands and Agriculture in 1996-1997.

Zimbabwe is one of seven countries in the SADC, which participated in the USAID-funded project on Regional Agricultural Trade and Changing Comparative Advantages in Southern Africa, coordinated by the University of Swaziland's Center for Agricultural Research and Policy Analysis.

The study seeks to contribute towards the expansion of intra-regional trade in Southern Africa, as well as to provide a comprehensive analysis of the agricultural comparative economic advantage (ACEA) of alternative production systems in Zimbabwe.

The study utilized the domestic resource cost (DRC) ratio approach, which provides a framework for comparing the economic cost of domestic resources to the economic value added by a production activity. If the economic value added outweighs the cost in domestic resources valued at their opportunity cost, then the production activity is competitive.

Competitiveness in different enterprises depends on

- geographic location relative to markets for inputs and outputs which effects profitability,
- agro-ecological suitability for growing different crops which effects yields, and
- level of infrastrucutural development.

For these reasons, the study analyzed production activities in different agro-ecological zones (NR I-V). It also takes cognizance of the different farming systems in terms of production technology. The high technology category comprises LSC farmers, while the low technology group includes SSC and CA farmers. The study did not include resettlement area (RA) farmers. The framework of analysis is based on the policy analysis matrix (PAM) presented below:

Policy Analysis Matrix

	Revenue	Tradable Cost	Domestic Factor Cost	Profits
Private Prices	A	B	C	D
Social Prices	E	F	G	H
Policy Effects (or Transfers	I	J	K	L

The following measures of economic or financial efficiency, and of net impacts of the policy environment can be deduced from the PAM:

- Private Profits (D) = A – (B + C)
- Social Profits (H) = E – (F + G)
- National Protection Coefficient (NPC) = A/E. NPC > 1 indicates producer price subsidy while NPC < 1 indicates producer price taxation.
- Effective Protection Coefficient (EPC) = (A – B)/(E-F), EPC > 1 indicates subsidies, while EPC < 1 indicates taxation of the enterprise.
- Total Net Policy Effect (NPE) = D – H (L) gives the net effect per hectare of the policy environment on the enterprise in monetary terms.

- Domestic Resource Cost Ratio (DRC or RCR) = G/(E – F) is a measure of comparative advantage of the enterprise. DRC > 1 indicate lack of competitiveness (better off importing) while DRC < 1 indicates competitiveness.

The study derived indicators for all the five agro-ecological zones (AEZs) in Zimbabwe as well as the three main farming sectors namely; LSC, SSC and CA. Data used in the calculations was based on survey data provided by the Ministry of Lands, Agriculture and Rural Resettlement's Policy and Planning Division, AGRITEX, and the Commercial Farmers Union. SSC and CA farmers were further designated on the basis of "average" and "best" yields, which do not necessarily translate into "average" and "best" profits.

Details of the presentation are contained in Annex D. It is interesting to note that some crops with comparative advantage in some AEZs are not as widely grown (e.g., groundnuts), while others with limited comparative advantage are more widely grown (e.g., maize).

Results of the ACEA study can be used in assisting farmers and development workers to put scarce resources in crops with potential. Identified policy effects in terms of taxation/subsidization need to be evaluated in terms of economic gains.

A. Discussions and Recommendations

In the discussion that ensued the following points were raised:

- The Consumer Council of Zimbabwe is encouraging the consumption of traditional crops like millet, which bases on the study results, is uneconomic to produce. There might be need to first develop a market for the traditional crops in order to improve their competitiveness.

- Some participants considered the study an academic exercise, which should not be passed on to farmers in its present state. Instead, farmers must be taught to assess viability of what they are doing and not what to grow and where. The study results need further analysis and fine-tuning to make them palatable to the farmer.

- Other values should be reviewed in ranking enterprises, such as food security, soil fertility enhancement benefits, rotation benefits, and drought resistance. A multiobjective ranking, therefore, is needed.

- ACEA is dynamic, not static. Data used in the exercise is from 1997 and a lot of things have changed since that time, thereby impacting on competitiveness.

- The study should be replicated over a period of time and should include more crops and livestock before drawing solid conclusions on competitiveness.

- The subject of small grains also came under the spotlight. Participants questioned the fact that some researchers emphasize and encourage the production of small grains in marginal rainfall areas, yet consumers do not really like them except for some traditional rituals. There may be a need to divert resources from small grains research to drought-tolerant maize

varieties since consumers prefer maize. Some research in dry areas of the country (e.g., Masvingo southern area) has actually shown drought-tolerant maize outperforming sorghum.

- The USAID representative expressed disappointment with various programs designed to help rural smallholders. The objective of many programs seems to be to make subsistence farmers better subsistence farmers, which defeats the process of engaging them in economically viable, long-term commercialization activities.

- Participants noted that the ACEA research did not include livestock. It was explained, in response, that time was limited, and generally crops are easier to study than livestock. It was further noted that research by the Rockefeller Foundation has shown that households with cattle perform better in crop production than those without.

- Constraints hindering development of some competitive crops identified in the study should be reviewed.

- It should be recognized that there is a lot of variation within the current five AEZs.

- The impact of HIV/AIDS on competitiveness should be studied.

4. REPORT ON "INFORMAL CROSS-BORDER TRADE BETWEEN ZIMBABWE WITH SOUTH AFRICA AND BOTSWANA"

Mr. Felix Masanzu and Mr. Anesu Vere of Feta Services presented the paper.

The study sought to generate qualitative and quantitative information about ICBT and to evaluate its potential impact on national food security. In addition, the study also reviewed Zimbabwe's trade policy in relation to her regional partners and the impact of further trade liberalization effected either by Zimbabwe or by selected trade partners. The presentation concentrated on the first objective.

Collection of data on ICBT was through a baseline survey and monitoring/ observation of the movement of goods across the Plumtree and Beitbridge border posts with Botswana and South Africa, respectively.

The baseline survey focused on public officials and informal trade practitioners using two different structured questionnaires. The questionnaires were administered at the two border posts over a period of four weeks.

Border monitoring involved observation and recording of goods carried by informal cross-border practitioners in terms of content, quantity and value.

A. Baseline Survey Results – Trader's Profile

Major highlights of the survey are:

- More than three-quarters of trade practitioners interviewed were female.
- Almost 70 percent of the informal traders come from the cities of Harare and Bulawayo.
- All traders interviewed were literate, with more than 60 percent having an ordinary level education certificate l (O level) or better.
- About 90 percent of the respondents rely on informal economic activities for their income and food security.
- A majority of the traders (86 percent) rely on their own savings to finance their business operations, this tends to limit scale of operations.
- Informal traders interviewed were vendors, hawkers or informal wholesalers, specialization is not obvious.
- Exports to South Africa were dominated by doilies, seat covers and African dresses (Zambia) while imports from the same country were dominated by bedding, jeans/jackets and plates/mugs.
- In the case of Botswana, groundnuts, Bambara nuts and sweet potatoes dominate the export goods carried by respondents while imports display a pattern similar to South Africa. These are food items and reflect food security issues.
- Eighty-seven percent of the respondents paid cash for the goods they import.
- About 64 percent of the informal traders interviewed said they source their foreign currency from the parallel market, compared to proceeds from their sales and 17 percent who source from the official market. It should be noted that some respondents use more than one source of forex.
- About 90 percent of the traders used their own storage; their wares are generally small in volume.
- Public transport is the most commonly used mode of transport; 87 percent of the respondents use this mode of transport.
- Almost all of the traders interviewed (99 percent) said that they obtained information on what to buy or sell by word-of-mouth, from their clients and others.
- Major problems faced by traders include high tariffs, shortage of foreign currency and low limits of goods allowed tax-free.
- Informal traders require government assistance on issues pertaining to foreign currency availability and credit supply for capital.

- Forty-three percent of the public officials interviewed would like to see ICBT stop, whereas informal traders consider ICBT as a source of livelihood.

B. Border Monitoring Results

Border monitoring was aimed at estimating the volume and value of ICBT between Zimbabwe with her neighbors, South Africa and Botswana. Enumerators were placed at the Beitbridge and Plumtree border posts for this purpose.

It was not possible to monitor exports because this required authority from the South African and Tswana authorities, which was not forthcoming.

During the 13 weeks of monitoring, enumerators estimated that US$8.35 million worth of goods entered the country under ICBT through the Plumtree and Beitbridge border posts. The bulk of the goods, representing 65.2 percent in value, came through Beitbridge. The table on the following page shows total imports by border and category of goods observed.

Value of Imports by Category (Ranked by Total)

CATEGORY	BEITBRIDGE	PLUMTREE	TOTAL
Electrical appliances, electronics & accessories	213,0019.44	774,883.51	2,904,902.95
Outfits	1,210,565.32	458,234.33	1,668,799.65
Bedding & soft furnishings	601,021.84	519,386.71	1,120,408.55
Industrial goods	372,557.04	339,653.12	712,210.16
Furniture	514,312.19	31,850.69	546,162.88
Toiletries & cosmetics	181,004.70	280,374.86	461,379.56
Kitchenware	148,045.71	185,075.11	333,120.82
Food & beverages	106,245.33	225,338.95	331,584.28
Household goods n.e.s.	97,621.45	73,959.01	171,580.46
Miscellaneous	87,370.47	13,926.40	101,296.87
TOTAL	5,448,763.49	2,902,682.69	8,351,446.18

Electrical appliances are the biggest category of goods imported into Zimbabwe under ICBT at 34.8 percent, followed by outfits at 20.0 percent. A border by border analysis shows electrical appliances at the top. However, in the case of Plumtree (Botswana), bedding and soft furnishings ranked second, compared to outfits in the case of Beitbridge (South Africa).

On a good by good basis, televisions contribute the most to total ICBT at 10.5 percent, followed by radios at 8.2 percent, blankets at 6.7 percent, footwear at 6.5 percent and refrigerators at 5.6 percent. Televisions are the most popular import item at both borders.

Not many agricultural commodities enter the country under ICBT, and these are included under food and beverages. This confirms that Zimbabwe is a net exporter of agricultural goods. The requirements for agricultural imports and export permits tend to hinder informal trade in agricultural commodities, including food.

Details of the presentation are contained in Annex E.

C. Discussions and Recommendations

- Participants wanted to know results of ICBT between Zimbabwe with Mozambique and Zambia. It would also be interesting to see the results of ICBT at informal crossing points (rat route), which due to lack of time and funding, were not covered. Copies of executive summaries of other country studies are attached to the workshop report (Annexes F and G).

- Participants also wanted to know whether ICBT is viable. While the questionnaire sought to answer this question, respondents were not forthcoming with useful information. Nonetheless, ICBT provides employment and income as an alternative to formal trading. ICBT requires low capital and should be legalized.

- The workshop participants also pointed out that some goods formally exported from the country might find their way back into Zimbabwe through ICBT. Some participants explained that some goods might be exclusively produced for the export market; the company, which does this, may actually gain at the expense of the nation. It was also noted that goods are generally expensive in normal/formalized trade. Participants agreed that there is a need for further research on this subject and wondered whether USAID would fund this activity.

- There is also a possibility that South Africa and Botswana are dumping substandard goods into Zimbabwe through ICBT. This is an area that also needs scrutiny.

- Consideration should be given to formalizing ICBT in an effort to keep track of movements of goods instead of stopping it.

- There may be need for further studies to refine certain gray areas and get more information where time was a constraint.

- There is need to change perceptions or attitudes toward the ICBT trade sector given its important role in the economy. ICBT practitioners should be accorded the same status as small- to medium-scale enterprises (SMEs) and should be availed support, instead of treating them as a nuisance. This is a policy issue for government.

- Participants expressed great concern about corruption and its impact on the economic and social development of Zimbabwe, in particular the difficulties of monitoring the illicit activities of well-placed senior government officials. This has implications on ICBT and, therefore, requires further research. Institutions like Transparency International and the World Bank might have the resources for such studies. The National Economic Consultative Forum also has an anti-corruption committee and the chairman may be approached on this subject. Corruption is everywhere; the difference is in degree. Research can start at subsector level with a view to estimate the amount of prejudice. The workshop noted that there might not be political will at the top to root out corruption, but this can be determined

by the will of the people. ACEA facilitators were asked to follow up this issue with relevant stakeholders.

5. CLOSING REMARKS

In his closing remarks, Mr. Felix Masanzu thanked Dr. Robbie Mupawose for chairing the workshop and Mr. Scott Allen for travelling all the way from Botswana to grace the occasion. The discussions were very useful and will be taken into consideration in finalizing the reports on studies reviewed. Feta Services will compile a report on the proceedings of the workshop, including copies of presentations, for distribution to participants and key stakeholders. (See annexes for presentations, a list of participants, and the workshop agenda.) Participants will be updated on developments on any issues raised in the workshop.

ANNEXES

ANNEX A. LIST OF PARTICIPANTS

	FULL NAME	ORGANIZATION & ADDRESS	SECTOR
1	Dr. Chrispen Sukume	Department of Agriculture & Extension University of Zimbabwe P O Box MP 167 Mt Pleasant HARARE	Public Enterprise
2	Mrs. Nancy Zitsanza	Ministry of Lands, Agriculture & Rural Resettlement P O Box 7701 Causeway HARARE	Government
3	Dr. Robbie M Mupawose	Zimbabwe Leaf Holdings P O Box 1397 HARARE	Private
4	Mark T Mutambira	Self Help Development Foundation P O Box 4576 HARARE	Nongovernmental organization
5	Fleming W Olsen	ASSP – DANIDA 17 Arondel Road Alexander Park HARARE	Donor agency
6	Dr. John Saungweme	P O Box MP 1168 MT Pleasant HARARE	Private
7	Ms Tendai Chigwada	The Tariff Commission P O Box CY 528 Causeway HARARE	Private enterprise
8	C Chipanga	The Tariff Commission P O Box CY 528 Causeway HARARE	Private enterprise
9	Scott Allen	USAID/RCSA P O Box 2427 Gaborone BOTSWANA	Donor agency

10	Ms Memory Ndava	Ministry of Mines & Energy P Bag 7709 Causeway HARARE	Government
11	Naison Zumbika	Agricultural Development Assistance Fund c/o Agribank P O Box 369 HARARE	Public enterprise
12	G Chisoko	ZIMPAPERS Herald House G Silundika/2nd Street P O Box 396 HARARE	Private
13	Stephen Zenda	Zimbabwe Women's Bureau P O Box CR 120 Cranborne HARARE	Nongovernmental organization
14	Clive Bepura	SADC FANR Sector/MoLA 43 R. Manyika Road HARARE	Regional Public enterprise
15	Secretariat • Felix M Masanzu • Mrs. Agnes Chaonwa • Anesu Vere • Rashirayi Chitavati • Mrs. Moreblessings Marongwe	Feta Services (Consultancy) 10th Floor Southampton Life Centre J Moyo/2nd Street P O Box CY 2453 Causeway HARARE	Private

ANNEX B. WORKSHOP AGENDA

AGRICULTURAL COMPARATIVE ECONOMIC ADVANTAGE WORKSHOP

DATE 30 NOVEMBER 2000

TIME 0800 – 1600 HOURS

VENUE: THE BRONTE HOTEL
Cnr 4th Street/Baines Avenue
HARARE
Tel:796631-5

WORKSHOP PROGRAMME

CHAIRING	Dr. Robbie Mupawose	
0800 - 0900	Registration	Secretariat
0900 - 0915	Welcome and Introduction	Mr. Felix Masanzu Feta Services
0915 - 0930	Opening address	Dr. V. Hungwe Acting Secretary: Lands, Agriculture & Rural Resettlement
0930 - 0945	Project remarks	Mr. Scott Allen USAID/RCSA
0945 – 1030	Presentations – C.E.A	Dr. C Sukume Mrs. N Zitsanza
1030 – 1045	Coffee/Tea break	
1045 – 1130	Presentation – ICBT	Mr. F. M. Masanzu Mr. A. Vere
1130– 1245	Discussions and Recommendations	
1245 – 1400	Lunch	
1400 –1515	Discussions and Recommendations	
1515 - 1530	Tea/Coffee Break	
1530 – 1600	Closing Remarks	Mr. Felix Masanzu Feta Services

ANNEX C. OPENING REMARKS

OPENING REMARKS BY THE ACTING PERMANENT SECRETARY IN THE MINISTRY OF LANDS, AGRICULTURE AND RURAL RESETTLEMENT, DR V. HUNGWE AT THE COMPARATIVE ECONOMIC ADVANTAGE WORKSHOP, HARARE – BRONTE HOTEL: 30 NOVEMBER 2000

Mr. Chairman

The Regional Representative of USAID

Representative of the Farming Community

The Coordinators of the TRADENET Project

Ladies and Gentlemen:

It is my pleasure to join you at this workshop which has been called to facilitate dialogue on studies carried out in Zimbabwe on Agricultural Comparative Economic Advantage (CEA) and Informal Cross Border Trade with Botswana and South Africa. I understand that similar studies were undertaken in several other countries within the Southern African sub-region.

Zimbabwe is a member of two important sub-regional groupings namely, SADC and COMESA and findings of these studies provide useful inputs into policy review and formulation as the country negotiates with other member states on issues pertaining to regional integration. Issues of comparative advantage should be taken into consideration when discussing trade matters so as to ensure that the position we take as a country maximize economic gains to not only the agricultural sector but the country as a whole.

I am informed that invitations were sent to a wide spectrum of organizations, covering both private and public institutions. This is important for effective consultation process and for cross fertilization of ideas. I am sure authors of these reports will make use of the contributions arising from today's discussions in finalizing their findings and recommendations.

Like many other countries in the region, Zimbabwe went through the process of trade liberalization under the economic reform program during the 1990s, which entailed the

liberalization of the agricultural sector, domestic market decontrols and the removal/reduction of barriers to external trade flows.

Domestic market deregulation and price decontrols resulted in the emergence of private sector participants in the marketing of agricultural produce. Prices are now largely market determined, whereas prior to this, produce and selling prices of major agricultural produce were fixed by the state on a pan-termtorial and pan-seasonal basis. This tended to encourage farmers to grow any crop anywhere, except where physical and biological conditions became extremely prohibitive.

As you may be aware, Zimbabwe is divided into five agro-ecological zones for farming purposes, based mainly on topography and rainfall. Pan-territorial pricing before 1991 however saw more crops being grown where they are not best suited. For instance, maize was grown throughout the country irrespective of agro-ecological region. Comparative economic advantages were ignored when it came to deciding what to produce. Statutory marketing boards were required to go out of their way to buy agricultural produce from farmers, whether they had a market or not, and irrespective of the cost. This compromised on economic efficiency.

The scenario has since changed with the decontrol of marketing as farmers now have to find markets for their produce as well, as negotiate the prices with traders and millers. The principles of comparative advantage, as well as agro-ecological suitability, now come into play when deciding what to produce where and in what quantities. Thus, the findings and recommendations of the Comparative Economic Advantage study are definitely useful in guiding farmers and other players on the best commodities to produce. Such choices maximize the use of our resources.

Furthermore, findings of the study will go a long way in helping us to review and formulate policies that compliment the principles of comparative advantage and remove hidden subsidies and taxation to some of the commodities.

It is pleasing to note that the same analysis was extended to other countries within the sub-region since our countries are also endowed with different resources. Put together, the various studies can pave the way to maximize gains under economic integration and co-operation in the region.

Let me now briefly comment on the subject of informal cross border trade (ICBT). The informal trade sector is playing an increasingly important role in the economy by creating employment for those that cannot be absorbed by the formal sector thereby generating incomes to enable those involved to feed themselves and their families.

However, by its very nature, informal cross border trade implies that goods enter the country without the payment of customs duties and taxes thereby short charging the fiscus. It is, therefore, through such studies that the government can evaluate the role of ICBT in the economy to enable it to formulate and review policies that enhance trade with a view of coming up with a position that ensures that benefits accrue to the economy.

To some extent, ICBT also demonstrates CEA in the region. Traders tend to import/export goods, which are not available or not affordable through the formal. Such imbalances should be reduced or eliminated as counties come together through economic integration.

The sub-region is gradually moving towards a free trade area through regional grouping like SADC and COMESA. This will at the end of the day, see goods, capital and labor freely moving across national borders without the need to distinguish formal from informal in terms of cross border trade. It is hoped that the benefits of free trade area will far outweigh the cost, in the long run.

In concluding, I wish to thank our sponsor, USAID; the coordinators of the project, the University of Swaziland's Centre for Research and Policy Analysis for including Zimbabwe on this research agenda; the authors of the reports under review, as well as the facilitators, Feta Services (Consultancy) for organizing this workshop. Last but not least, I would like to thank all participating stakeholders for coming together to give practical meaning to the findings and recommendations of the studies under review.

I hope that your discussions will be positive and fruitful and I look forward to receiving the workshop's recommendations. They will prove handy as the government revisits existing policies and/or formulate new ones in its efforts to improve the country's economic performance

THANK YOU!

ANNEX D. REPORT ON "THE EVALUATION OF COMPETITIVENESS IN DIFFERENT FARMING COMMUNITIES IN PRODUCING A VARIETY OF AGRICULTURAL COMMODITIES IN ZIMBABWE"

Background

The Comparative Economic Advantage Study, the results of which we present at this forum, is part of a broader research agenda on regional trade in Southern Africa implemented under a co-operative agreement between the University of Swaziland and REDSO/ESA, RSCA and the Africa Bureau for Sustainable Development. In all seven countries were involved in the study including Malawi, South Africa, Swaziland, Mozambique, Tanzania, Zambia and Zimbabwe.

In Zimbabwe the study was conducted as a joint effort of the University of Zimbabwe's Department of Agricultural Economics and Extension, and Ministry of Lands, Agriculture and Rural Resettlement's Policy and Planning Branch. The study team consisted of Dr Mabeza-Chimedza, Dr Sukume, Mr. Makaudze (from the University) and Ms Zitsanza (from the Ministry).

Research Questions

A number of key research questions guided the economic advantage study. Specifically, the study sot to answer the questions:

- What comparative advantage does Zimbabwe have in production of crops in the different agro-ecological zones and farming sectors?
- How are policies affecting the different crop production options in the different farming sectors?
- What inferences can be drawn on future developments in the cropping sectors given the move towards greater integration in the Southern African region?

Methodology

To help answer the above research questions the study team chose the Policy Analysis Matrix (PAM) as the underlying theoretical framework guiding analysis. The PAM, in addition to revealing net impacts of the policy environment on cropping enterprises, also makes it easy to derive a number of competitiveness indicators to help infer comparative advantage.

Basically the methodology hinges on the simple profit equation
Profit = Revenue – Cost

PAM, as presented in Table 1, has four columns. The first is for revenue, the second and third are for costs, and the last is for profitability. Each PAM contains two cost columns, one for tradable inputs and the other for domestic factors. It distinguishes between tradable inputs and domestic resources because exchange rate policies affect the former and because certain measures of efficiency require the distinction. Intermediate inputs--including fertilizer, pesticides, purchased seeds, electricity, transportation and fuel -- are divided into their tradable - input and domestic factor components.

The PAM has three rows. The first two rows represent the two different versions of the profit equation above, with the first row evaluated using actual (market) prices and the row below it

evaluated at shadow or social prices. The effect of government policy (or market failure) is measured in the third row, for which each entry is simply the difference between its value in the first row and in the second row.

Policy Analysis Matrix

	Revenues	Tradable Costs	Domestic Factor Costs	Profits
Private Prices	A	B	C	D
Social Prices	E	F	G	H
Policy Effects (or transfers)	I=(A-E)	J=(B-F)	K=(C-G)	L=(D-H)=(I-J-K)

A number of measures economic or financial efficiency, and of net impacts of the policy environment can easily be deduced from the PAM:

- Financial profitability indicating the financial feasibility of an enterprise is given by cell D.
- Social profitability indicating economic feasibility or the net benefit to the nation of an enterprise is given by cell H.
- Nominal protection coefficient (NPC) calculated as ratio (A/E) indicates as a unit free measure the extent to which the policy environment increases (subsidy) or reduces (taxation) the revenue from an enterprise. A NPC greater than 1.0 indicates output price subsidy and NPC less than 1.0 indicates output price taxation.
- Effective Protection Coefficient (EPC) calculated as ratio (A-B)/(E-F) reflects the overall protection/exploitation with respect to all tradable (both outputs and inputs). An EPC greater than 1.0 indicates subsidies while EPC less than1.0 indicates taxation of the enterprise.
- Total net policy effects (NPE) computed as (D-H) in cell L gives the net effect per hectare of the policy environment on the enterprise in monetary terms.

In addition to policy effects information in the PAM helps us deduce a measure of comparative advantage of the enterprise. The domestic resource cost ratio (DRC) measured by the ratio of value added to domestic resources valued at social prices G/(E-F) is the measure adopted in this study. It is domestic resources required to produce a unit of value added. A DRC greater than 1.0 indicates non-competitiveness in that we are using more of our domestic resources than the value added created. In such situations we are better off importing the commodity and use our scarce domestic resources in ventures that produce more value per unit domestic resource. Conversely, a DRC less than 1.0 indicates competitiveness in that we are using less resource for the gain we get in value addition.

Implementation

The study derived indicators for all agro-ecological zones in Zimbabwe as well as the three main farming sectors: large-scale commercial (LSCF), Small-scale commercial (SSCF) and Communal Area (CA) sectors. This was based on a combination of survey data by the Policy

and Planning Division (PPD), survey of district extension officers and information provided by the Commercial Farmers' Union (CFU).

For the SSC and CA sectors a disagregation was made of farmers producing what extension officers defined as 'average' yields from those producing 'best' yields. It should be noted that these distinctions did not always translate into 'average' versa 'best' profits.

Weaknesses of Methodology

Before we present our results however we would like to point out some of the obvious weaknesses in the methodology as applied in the study at this stage. The method does not discount the negative externality effects in some production processes. For instance, it does not take into account mining of the soil inherent in practices of 'average' farmers who do not use any fertility enhancers in sunflower production. Because they do not use tradable inputs such enterprises may show high competitiveness despite the fact that over time their practices will impoverish the soil.

Little account is also taken into reflecting positive external benefits of some enterprises. For example, no account is taken of benefits of some enterprises of nitrogen fixation or pest management benefits in social valuations.

Also limiting is the categorization of regions into the agro-ecological zones of Zimbabwe. There exist substantial differentiation within the current zonation.

The study did not also look at all the crops that could be grown with the regions concentrating only on crops currently being grown. This limits inference on changes that involve coming in of newer crops which is envisaged with regional trade liberalization.

A. Competitiveness of Production in Communal Areas

Burley Tobacco (ave)

	Zone				
Measure	1	2	3	4	5
Fin Profit		11896	6102		
Soc Profit		14197	7594		
NPC		0.88	0.88		
EPC		0.88	0.87		
DRC		0.33	0.53		

Viability: Private profits per hectare have been positive and high in both growing regions indicating financial feasibility to the individual farmer. Social profits have also been positive and high indication that production benefits the nation as a whole.

Policy Effects: Overall effects of government policies have had taxing effect on the burley tobacco production in this sector and farmer group.

Comparative Advantage: We have comparative advantage in the Natural Regions 2 and 3 were Burley tobacco is grown.

Burley Tobacco (best)

	Zone				
Measure	1	2	3	4	5
Fin Profit		8534	857		
Soc Profit		4419	-4961		
NPC		0.88	0.88		
EPC		0.76	0.73		
DRC		0.85	-3.88		

Viability: Private profits per hectare have been positive in both growing regions indicating financial feasibility to the individual farmer. However, the high tradable input use by 'best' resulted in negative social profits in Region 3 though Region 2 still exhibits positive and high social profits indicating that production in this zone still benefits the nation as a whole.

Policy Effects: Overall effects of government policies have had taxing effect on the burley tobacco production in this sector and farmer group.

Comparative Advantage: We have comparative advantage in Natural Regions 2 but not in 3 in Burley tobacco production using the technology of the so-called 'best' farmers.

Cotton (ave)

	Zone				
Measure	1	2	3	4	5
Fin Profit		1825	1153	641	481
Soc Profit		2903	2055	1400	1179
NPC		0.82	0.82	0.82	0.82
EPC		0.81	0.81	0.8	0.8
DRC		0.52	0.57	0.62	0.65

Cotton (best)

	Zone				
Measure	1	2	3	4	5
Fin Profit		2876	1723	1275	1275
Soc Profit		4671	3160	2594	2594
NPC		0.82	0.82	0.82	0.82
EPC		0.8	0.81	0.81	0.81
DRC		0.5	0.54	0.57	0.57

Finger millet (ave)

	Zone				
Measure	1	2	3	4	5
Fin Profit		1065	878	859	840
Soc Profit		1197	1049	1079	1057
NPC		0.87	0.87	0.87	0.87
EPC		0.87	0.87	0.87	0.87
DRC		0.45	0.44	0.42	0.42

Finger millet (best)

	Zone				
Measure	1	2	3	4	5
Fin Profit		2201	1640	1266	1266
Soc Profit		2671	2069	1668	1668
NPC		0.87	0.87	0.87	0.87
EPC		0.87	0.86	0.87	0.87
DRC		0.4	0.41	0.43	0.43

Groundnuts (ave)

	Zone				
Measure	1	2	3	4	5
Fin Profit		1311	1334	861	-41
Soc Profit		5924	6086	4414	1129
NPC		0.36	0.36	0.36	0.36
EPC		0.36	0.36	0.35	0.35
DRC		0.2	0.19	0.2	0.38

Groundnuts (best)

	Zone				
Measure	1	2	3	4	5
Financial Profit		1498	1047	371	-531
Social Profit		10323	8760	6349	3063
NPC		0.36	0.36	0.36	0.36
EPC		0.35	0.34	0.34	0.32
DRC		0.24	0.25	0.29	0.42

Maize (ave)

	Zone				
Measure	1	2	3	4	5
Financial Profit	-232	418	161	-166	-297
Social Profit	-326	383	207	-129	-326
NPC	1.05	1.05	1.05	1.05	1.05
EPC	1.00	1.01	1.00	1.00	1.06
DRC	1.41	0.88	0.93	1.17	1.80

Maize (best)

	Zone				
Measure	1	2	3	4	5
Financial Profit	53	631	53	-578	-985
Social Profit	-65	501	15	-549	-948
NPC	1.02	1.02	1.02	1.02	1.02
EPC	1.01	1.02	1.01	1.02	1.01
DRC	1.09	0.85	0.99	1.42	2.52

Pearl millet (ave)

	Zone				
Measure	1	2	3	4	5
Financial Profit		-388	-388	-397	-376
Social Profit		-586	-506	-473	-426
NPC		1.11	1.11	1.11	1.11
EPC		1.12	1.12	1.12	1.12
DRC		2.59	2.37	2.00	2.92

Pearl millet (best)

	Zone				
Measure	1	2	3	4	5
Financial Profit		-955	-955	-955	-955
Social Profit		-1153	-1073	-1020	-1020
NPC		1.11	1.11	1.11	1.11
EPC		1.15	1.15	1.15	1.15
DRC		3.07	2.93	2.83	2.83

Sorghum (ave)

	Zone				
Measure	1	2	3	4	5
Financial Profit		188	123	168	44
Social Profit		-558	-466	-422	-396
NPC		2.41	2.41	2.41	2.41
EPC		2.52	2.52	2.52	2.53
DRC		2.43	2.37	2.13	2.44

Sorghum (best)

	Zone				
Measure	1	2	3	4	5
Financial Profit		120	120	-369	-369
Social Profit		-1360	-1260	-1129	-1129
NPC		2.41	2.41	2.41	2.41
EPC		3.05	3.05	3.83	3.83
DRC		3.02	2.9	5.06	5.06

Sunflower (ave)

	Zone				
Measure	1	2	3	4	5
Financial Profit		580	543	328	356
Social Profit		1492	1484	1033	1099
NPC		0.58	0.58	0.58	0.58
EPC		0.57	0.57	0.57	0.57
DRC		0.40	0.37	0.39	0.38

Sunflower (best)

	Zone				
Measure	1	2	3	4	5
Financial Profit		539	353	72	72
Social Profit		2322	1963	1358	1358
NPC		0.58	0.58	0.58	0.58
EPC		0.54	0.54	0.53	0.53
DRC		0.44	0.45	0.49	0.49

B. Competitiveness of Production in the LSC Sector

Private Profitability

Table 1: Private Profitability by NR/Agro-ecological Zone

	Agro-ecological Zone (Z$/ha)				
	1	**2**	**3**	**4**	**5**
Barley	-	+	-	+	+
Burley Tobacco	+	+	+		
Cotton	+	+	+	-	-
Groundnuts	+	+	+	-	-
Maize	+	+	-	-	-
Paprika	-	+	+	+	+
Sorghum	+	+	+	+	-
Soyabeans	+	-	-	-	-
Sunflower	-	+	+	+	+
Virginia Tobacco	+	+	+	+	-
Wheat	-	+	+	+	+

- Most crops are financial viable in NRI-III
- Soyabeans are viable only in NRI
- Maize is viable in NRI&II
- Virginia Tobacco is viable in all NRs except NRV
- Wheat, sunflower and paprika are viable in all except NRI

Social Profitability

Table 2: Social Profitability by NR/Agro-ecological Zone

	Agro-ecological Zone(Z$/ha)				
	1	2	3	4	5
Barley	-	+	+	+	+
Burley Tobacco	+	+	+		
Cotton	+	+	+	+	+
Groundnuts	+	+	+	+	-
Maize	+	+	+	-	-
Paprika	-	+	+	+	+
Sorghum	-	-	-	-	-
Soyabeans	+	+	+	-	-
Sunflower	+	+	+	+	+
Virginia Tobacco	+	+	+	+	-
Wheat	+	+	+	+	+

- Most crops are socially profitable in NRI-IV
- Sorghum is the only crop with negative social returns in all NRs

Policy Interventions Effects

Table 3: NPC and EPC by NR/Agro-ecological Zone

	NPC	EPC By Agro-ecological Zone				
	All zones	1	2	3	4	5
Barley	0.84	0.78	0.80	0.78	0.79	0.80
Burley Tobacco	0.88	0.87	0.86	0.86		
Cotton	0.82	0.77	0.76	0.75	0.72	0.72
Groundnuts	0.49	0.43	0.45	0.42	0.37	0.25
Maize	1.05	1.08	1.09	1.11	>1	>1
Paprika	0.88	0.82	0.86	0.85	0.85	0.85
Sorghum	3.25	6.29	6.76	1.40	>1	6.58
Soyabeans	0.80	0.75	0.72	0.71	0.62	0.62
Sunflower	0.65	0.57	0.59	0.59	0.57	0.57
Virginia Tobacco	0.88	0.87	0.87	0.87	0.87	0.83
Wheat	0.86	0.82	0.82	0.83	0.82	0.82

Nominal Protection Coefficient (Policy impacts on product prices)

- Maize and sorghum have largely been subsidized
- Sorghum has been heavily subsidized
- Most of the other commodities have been taxed
- Groundnuts have been heavily taxed followed by sunflower

Effective protection Coefficient (Overall impact of policy)

- Maize and sorghum have been subsidized in all NRs
- Most other crops have been taxed

Comparative Advantage in the LSC Sector

Table 4: RCRs by NR/Agro-ecological Zone

	Agro-ecological Zone				
	1	2	3	4	5
Barley	1.10	0.68	0.88	0.69	0.59
Burley Tobacco	0.40	0.53	0.58		
Cotton	0.52	0.53	0.59	0.69	0.69
Groundnuts	0.30	0.19	0.32	0.53	1.04
Maize	0.83	0.92	1.07	>1	>1
Paprika	1.18	0.34	0.65	0.63	0.63
Sorghum	3.72	4.86	>1	>1	7.15
Soyabeans	0.54	0.82	0.75	1.45	1.45
Sunflower	0.58	0.38	0.34	0.35	0.35
Virginia Tobacco	0.59	0.42	0.49	0.57	1.63
Wheat	0.79	0.66	0.57	0.71	0.57

- Maize is competitive in NRI &II
- Virginia tobacco and groundnuts are competitive in all NRs except NRV
- Paprika and barley are not competitive in NRI
- Cotton, sunflower and wheat is competitive in all NRs

Sensitivity analysis

International Prices

- A 6% increase in world prices would make barley competitive in all zones

- Burley tobacco is strongly competitive. It would require a 54% decrease in world prices to make it noncompetitive nationwide
- A 22% drop in world prices would make groundnuts noncompetitive only in NR IV & V
- Maize is sensitive to prices, a 14 % drop in world price would make maize noncompetitive countrywide

Yield Change Simulation

- A 7% increase in yield would make barley competitive in all zones
- A 3% increase in yield would make groundnuts competitive countrywide
- It would require a massive drop of 75% to make groundnuts noncompetitive throughout the country
- Maize requires only a drop of 15% for it to be noncompetitive in all regions

C. Competitiveness of Production in the Small Scale Commercial Sector

Private Profitability

Table 5: Private Profitability by NR/Agro-ecological Zone

	Agro-ecological Zone (Z$/ha)				
	1	2	3	4	5
Cotton 1		+	+	+	
Cotton 2		+	+	+	
Groundnut 1	+	+	+	+	+
Groundnut 2	+	+	+	+	+
Maize 1	+	+	-	-	-
Maize 2	+	+	+	-	-
Sorghum 1	+	-	-	-	-
Sorghum 2	+	+	-	-	-
Sunflower 1		+	+	+	+
Sunflower 2		+	+	+	+

- Cotton, groundnuts and sunflower are financially viable in all the regions they are grown
- Maize is financial viable in NR I & II; and NRI-III for the average and best farmer practices respectively.

- Sorghum is not viable except for farmers in:
  - NR I (using average practices), and
  - NR I & II (using best practices)

Table 6: Social Profitability by NR/Agro-ecological Zone

	Agro-ecological Zone (Z$/ha)				
	1	2	3	4	5
Cotton 1		-	-	-	
Cotton 2		+	+	+	
Groundnut 1	+	+	+	+	+
Groundnut 2	+	+	+	+	+
Maize 1	+	+	-	-	-
Maize 2	+	+	+	-	-
Sorghum 1	-	-	-	-	-
Sorghum 2	-	-	-	-	-
Sunflower 1		+	+	+	+
Sunflower 2		+	+	+	+

- Groundnuts and sunflower are socially viable in all NRs for both farmer practices
- Cotton is socially viable in all the regions it is grown under best farmer practices
- Sorghum is socially nonviable in all areas
- Maize is socially viable in NRI & II; and NRI-III for the average and best farmer practices respectively
- Results for sorghum, maize and sunflower are similar to LSC.

Policy Interventions Effects

Table 7: NPC and EPC by NR/Agro-ecological Zone

	NPC All Zones	EPC by Agro-ecological Zone				
		1	2	3	4	5
Cotton 1	0.82		1.76	1.61	1.71	
Cotton 2	0.82		0.80	0.80	0.80	
Groundnut 1	0.36	0.36	0.36	0.36	0.36	0.36
Groundnut 2	0.36	0.35	0.35	0.35	0.34	0.34
Maize 1	1.05	1.06	1.06	1.07	1.10	1.15
Maize 2	1.05	1.06	1.06	1.07	1.11	1.15
Sorghum 1	3.25	2.41	2.95	2.92	2.92	2.92
Sorghum 2	3.25	2.34	2.91	4.57	8.95	3.47
Sunflower 1	0.65		0.63	0.63	0.63	0.63
Sunflower 2	0.65		0.62	0.61	0.61	0.60

- Sorghum has been heavily subsidized
- Groundnuts and sunflower have been heavily taxed
- Maize has been subsidized in NRI-III
- Cotton has been taxed under best farmer practices

Comparative Advantage in SSC Sector

Table 8: RCRs by NR/Agro-ecological Zone

	Agro-ecological Zone				
	1	2	3	4	5
Cotton 1		1.28	1.10	1.17	
Cotton 2		0.45	0.45	0.47	
Groundnut 1	0.21	0.21	0.20	0.21	0.24
Groundnut 2	0.18	0.18	0.20	0.24	0.25
Maize 1	0.92	0.95	1.16	1.89	2.83
Maize 2	0.81	0.83	1.02	1.74	2.24
Sorghum 1	2.46	3.65	3.33	3.15	3.15
Sorghum 2	1.74	2.49	4.95	10.50	4.83
Sunflower 1		0.45	0.42	0.43	0.44
Sunflower 2		0.39	0.47	0.50	0.52

- Both average and best farmers are competitive in groundnut production in all regions
- Maize is marginally competitive in NRI & II and noncompetitive elsewhere
- Sunflower is competitive in all areas
- Best farmers are competitive in cotton producing areas

Sensitivity Analysis of Comparative Advantage

International Prices

- Cotton production under average farmer practices is only marginally noncompetitive since a mere 10 percent increase in world prices would make it competitive.
- About 50 percent decline in prices would be required to make cotton farmers noncompetitive.
- Over 70 percent decrease in prices is required before groundnuts become noncompetitive.
- In contrast it would take only 16 percent decrease in price to make maize noncompetitive in all areas.
- At the other extreme is sorghum would need more than a 100 percent increase in world prices before it becomes competitive in all areas.

- Sunflower's competitiveness, however, is high as it would require at least 39 percent reduction in prices to make it noncompetitive.

Yield Change Simulations

- Groundnuts are highly competitive as it would require a reduction in yields of over 70% to make them noncompetitive
- Sunflower would require at least more than 50% reduction in yield to make them noncompetitive in all regions
- Alternatively sorghum would require over 300% increase in yields for it to be competitive in all regions.

Summary and Conclusion

- Evaluates which crops should receive attention in different sectors and natural regions RCRs (Table 9)
- Assists farmers, government and development workers to put scarce resources into development of crops with the highest social benefits especially in light of regional integration under SADC and COMESA.
- Identification and quantification of the effects of present policies on production of individual crops.
- Need to pursue further the hindrances to exploitation of comparative advantage for each crop from production through to sale
- Recommend strategies to address the identified constraints

Table 9: Ranking of RCRs in Sector by NR/Agro-ecological Zone

Sector	Agro-ecological Zone				
	1	2	3	4	5
LSC	Groundnuts Burley Tobacco Cotton Soyabeans Sunflower Virginia Tobacco Wheat Maize	Groundnuts Paprika Sunflower Virginia Tobacco Cotton Burley Tobacco Wheat Barley Soyabeans Maize	Groundnuts Sunflower Virginia Tobacco Wheat Burley Tobacco Cotton Paprika Soyabeans Barley	Sunflower Groundnuts Virginia Tobacco Paprika Barley Cotton Wheat	Sunflower Wheat Barley Paprika Cotton
SSC	Groundnuts Maize	Groundnuts Sunflower Maize	Groundnuts Sunflower	Groundnuts Sunflower	Groundnuts Sunflower
COM		Groundnuts Sunflower Finger millet Cotton Burley Tobacco Maize	Groundnuts Sunflower Finger millet Cotton Maize	Groundnuts Sunflower Finger millet Cotton	Groundnuts Sunflower Finger millet Cotton

ANNEX E. REPORT ON "INFORMAL CROSS-BORDER TRADE BETWEEN ZIMBABWE WITH SOUTH AFRICA AND BOTSWANA"

BACKGROUND/INTRODUCTION

ICBT studies have been undertaken in several Eastern and Southern Africa countries, namely:

- Kenya/Uganda
- Kenya/Tanzania
- Malawi/Mozambique
- Malawi/Zambia
- Mozambique/Zimbabwe
- Mozambique/Swaziland
- Zimbabwe/South Africa
- Zimbabwe/Botswana

Feta Services (Consultancy) was commissioned to carry out the Zimbabwe/South Africa and Zimbabwe/Botswana ICBT study in year 2000. The ICBT final report is in the making and will incorporate comments from this workshop.

OBJECTIVES OF THE STUDY

First objective was aimed at limited border observation in order to generate qualitative and quantitative information about informal cross-border trade (ICBT) and to evaluate its potential impact on national food security. More specifically, the exercise was to:

- provide an overall analysis of how the informal traders overcome the major constraints facing formal traders such as mutually acceptable exchange rates, transportation, information, financing and means of balancing trade between countries;
- provide estimates of the magnitude of unrecorded trade highlighting the most important commodities (and categories of commodities) being traded and the trade patterns; and
- recommend steps, which should be taken to enhance trade between Zimbabwe and her neighbours - South Africa and Botswana.

Second objective was more broad based and required a review of Zimbabwe's trade policies in relation to her regional trade partners and the impact of further trade liberalisation effected either by Zimbabwe or by selected trade partners. More specifically, it was to:

- determine the fiscal and institutional implications of liberalising cross-border trade between Zimbabwe and neighbours (taxation policies, tax revenues from imports, resource requirements and institutional changes);
- determine the economic impacts of liberalising trade between Zimbabwe and her neighbours in terms of net benefits to: consumers and producers, employment and trade creation; and
- Recommend the policy reforms and institutional arrangements required to minimise the short-term negative impacts of trade liberalisation in Zimbabwe.

CONSTRAINTS

This exercise faced the following constraints:

- Some traders were unwilling to give details on the nature of their business because they regarded the information asked to be of private nature or suspected that the questionnaire administrator could be a state security agent.

- Data on quality and prices of goods was hard to come by;

- Representatives of some of the private companies at the borders could not give information because they needed clearance from their respective head offices in Harare.

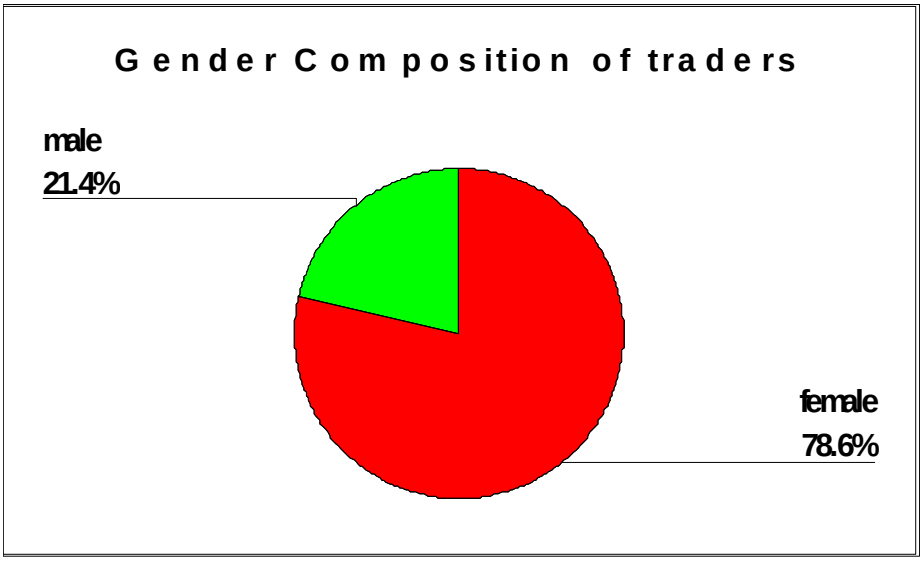
FINDINGS OF THE STUDY

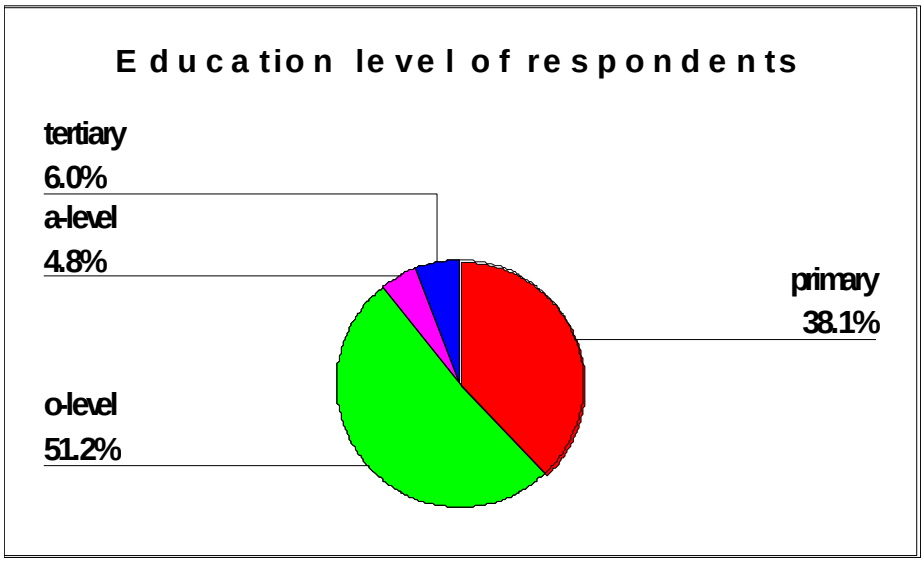
Highlights of the ICBT study are split into:

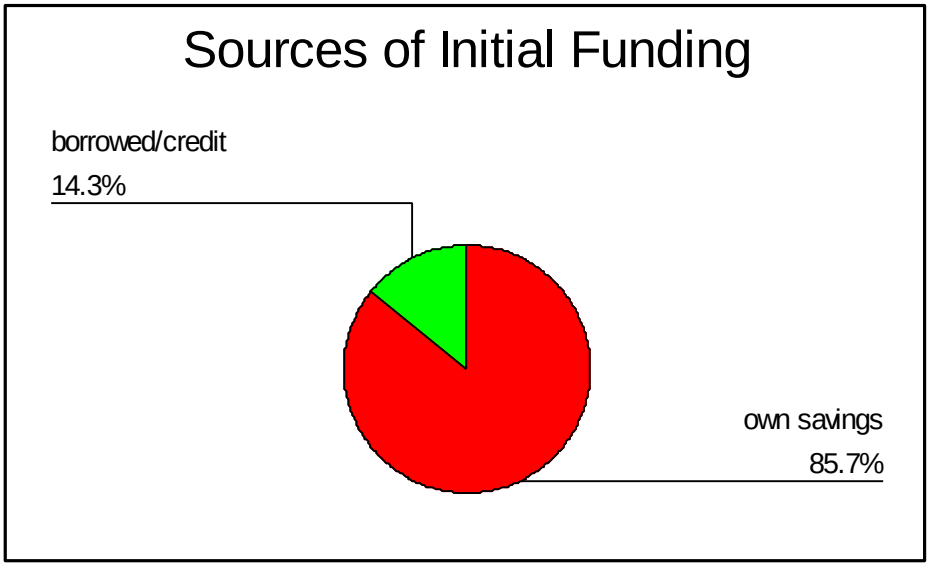
a. Baseline survey results which focuses on traders' profile

b. Border monitoring results focuses on volume and value of informal cross border trade between Zimbabwe and South Africa/Botswana

A. BASELINE SURVEY RESULTS




Education level of respondents
tertiary
6.0%
a-level
4.8%
primary
38.1%
o-level
51.2%

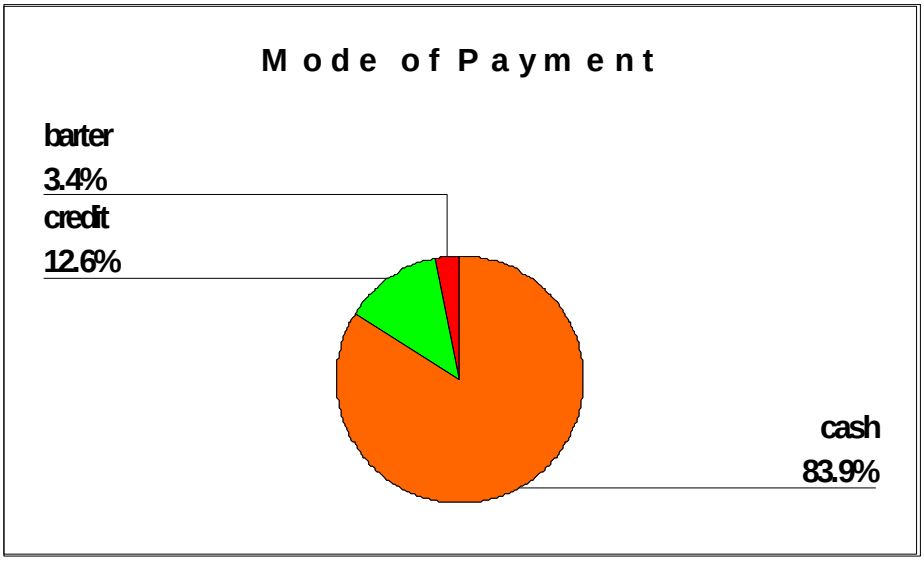

Sources of Initial Funding
borrowed/credit
14.3%
own savings
85.7%

Major Goods Exported by Informal Cross-Border Traders (% of respondents carrying similar goods)

Goods	South Africa (Beitbridge)	Botswana (Plumtree)	Overall
Groundnuts	21.6	36.4	27.3
Seat covers	33.3	9.1	23.8
Doilies	41.2	-	25.0
Bambara nuts	19.6	27.3	22.6
Woolen jerseys	2.0	-	1.2
Nyemba	2.0	15.2	7.1
African dress	25.5	3.0	16.7
Crafts	19.6	15.2	17.9
Bed covers	7.8	6.1	7.1
Sweet potatoes	-	24.2	9.5
Clothes	3.9	6.1	4.8
Bed sheets	2.0	12.1	10.0
Cigarettes	-	3.0	1.2
Leather wallets	-	3.0	1.2
Sugar cane	-	3.0	1.2
Foam rubbers	-	6.1	2.4
Cassettes	-	3.0	1.2
Madora	3.9	-	2.4
Milk	2.0	-	1.2
Fish	2.0	-	1.2
Mufuswa	2.0	-	1.2
Vegetables	-	6.1	2.4
Oranges	-	6.1	2.4
Grass	-	3.0	1.2
Tomatoes	2.0	-	1.2
Onions	2.0	-	1.2
SAMPLE SIZE (No.)	**51**	**33**	**84**

Major Goods Imported by Informal Cross-Border Traders
(% of respondents carrying similar goods)

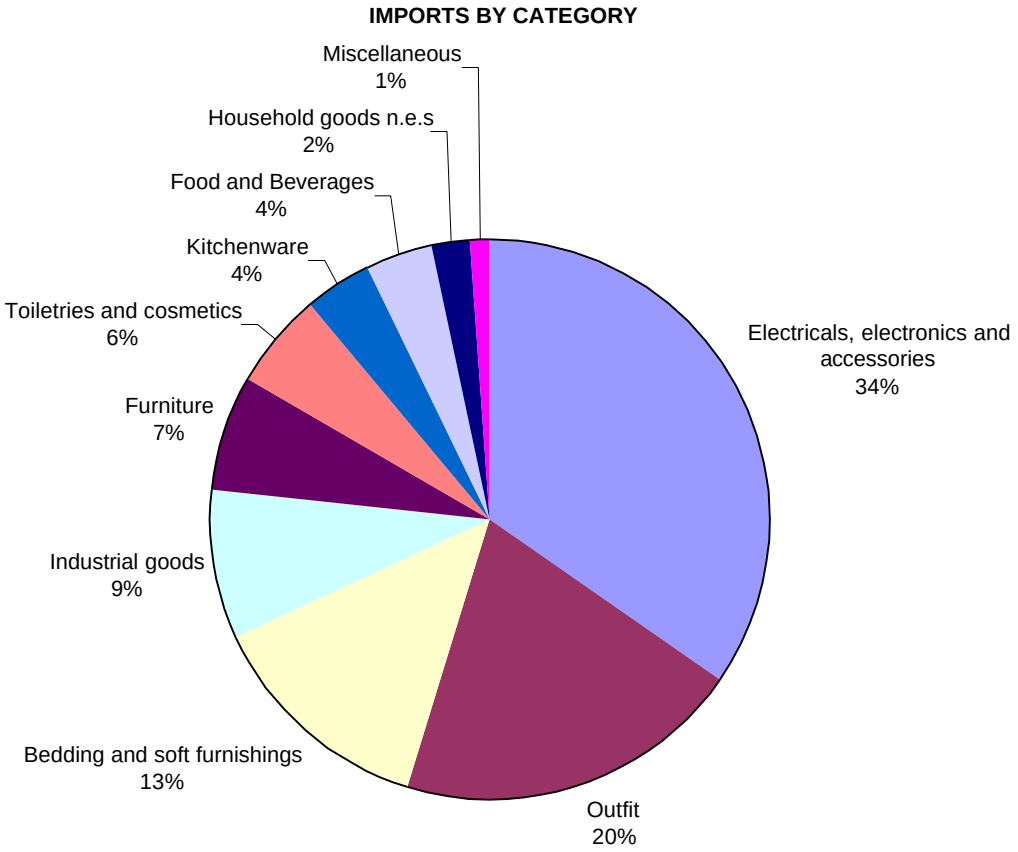
Goods	South Africa (Beitbridge)	Botswana (Plumtree)	Overall
Bedding	47.1	63.6	53.6
Jean, jackets	45.1	63.6	52.3
Plates, mugs	27.5	54.5	38.1
Tackies	21.6	3.0	14.3
Hair products	11.8	3.0	8.3
Vaseline	3.9	12.1	7.1
Track suits	3.9	6.1	4.8
Television	7.8	3.0	6.0
t-shirts	7.8	6.1	7.1
Radio	7.8	3.0	6.0
Paint	-	9.1	3.6
Cooking oil	7.8	-	4.8
Handbags	2.0	3.0	2.4
Dresses	3.9	3.0	3.6
Doors/ fence	-	6.1	2.4
Ironsheets	-	6.1	2.4
Colgate	-	6.1	2.4
Bikes	2.0	3.0	2.4
Used tires		3.0	1.2
Solar panels	2.0	3.0	2.4
Rice	7.8	-	4.8
Kitchen unit	3.9	-	2.4
SAMPLE SIZE (No.)	**51**	**33**	**84**



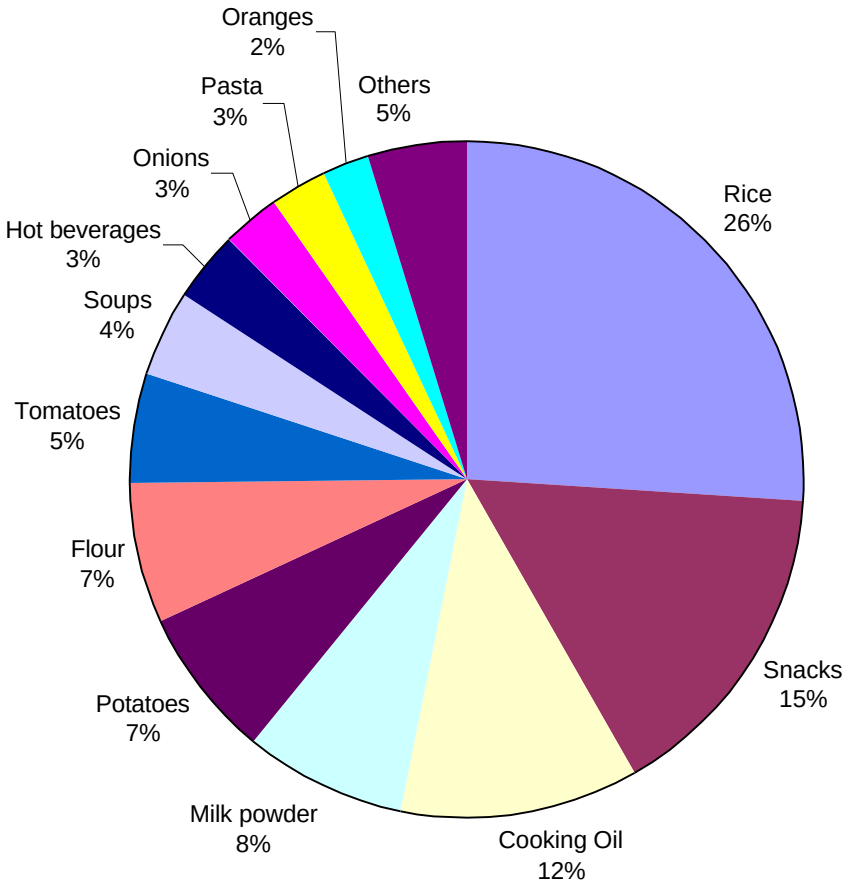
B. BORDER MONITORING RESULTS

The goods that were observed in this process were categorized into:

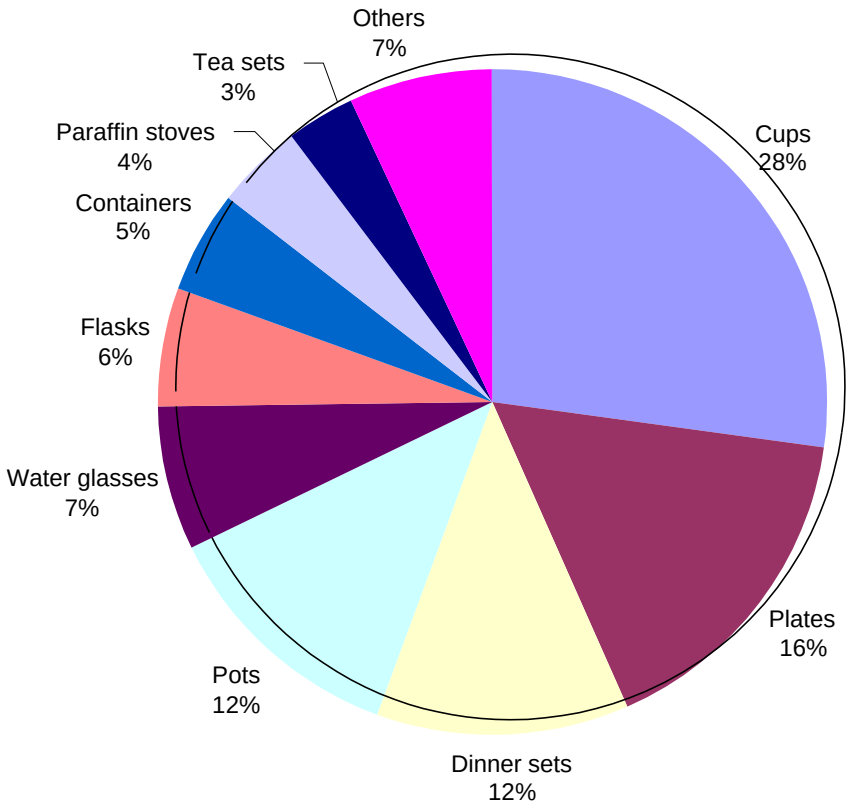
1. Food and Beverages
2. Kitchenware
3. Bedding and Soft furnishings
4. Furniture
5. Industrial goods
6. Electrical appliances, electronics and accessories
7. Outfit
8. Toiletries and Cosmetics
9. Miscellaneous
10. Household goods not else where stated


IMPORTS BY CATEGORY
Miscellaneous 1%
Household goods n.e.s 2%
Food and Beverages 4%
Kitchenware 4%
Toiletries and cosmetics 6%
Furniture 7%
Industrial goods 9%
Bedding and soft furnishings 13%
Outfit 20%
Electricals, electronics and accessories 34%

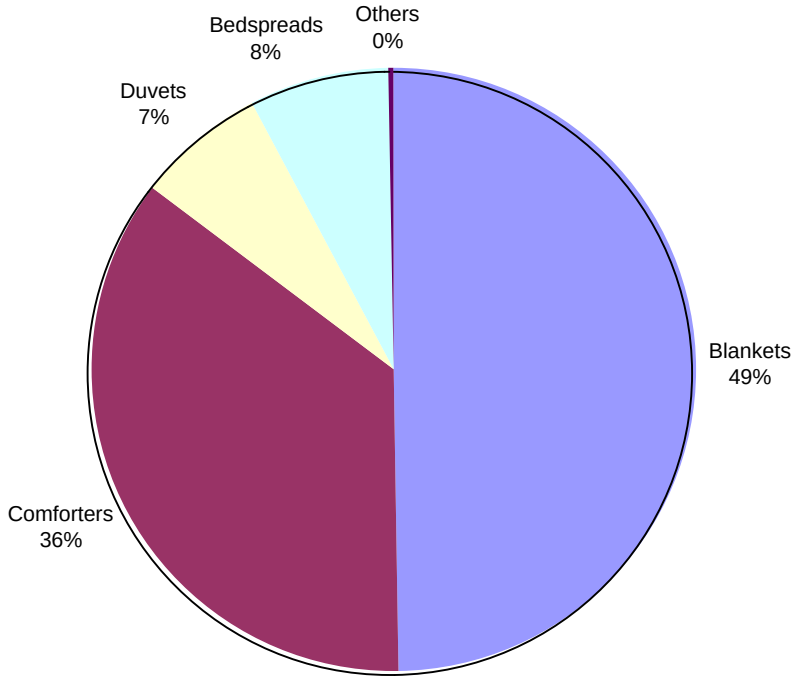
Food and Beverages-% Share



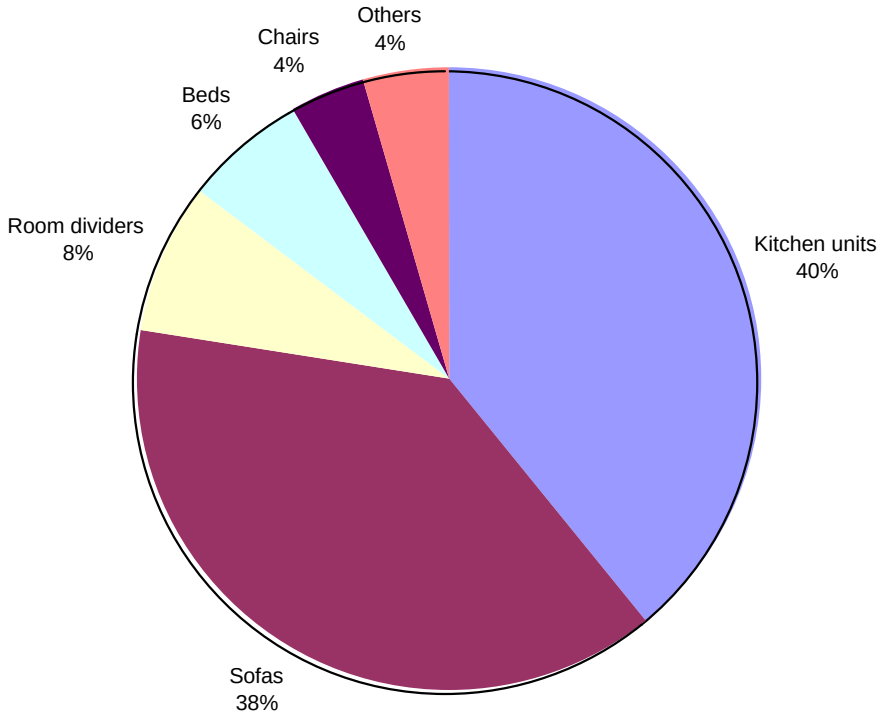
Kitchenware - % Share



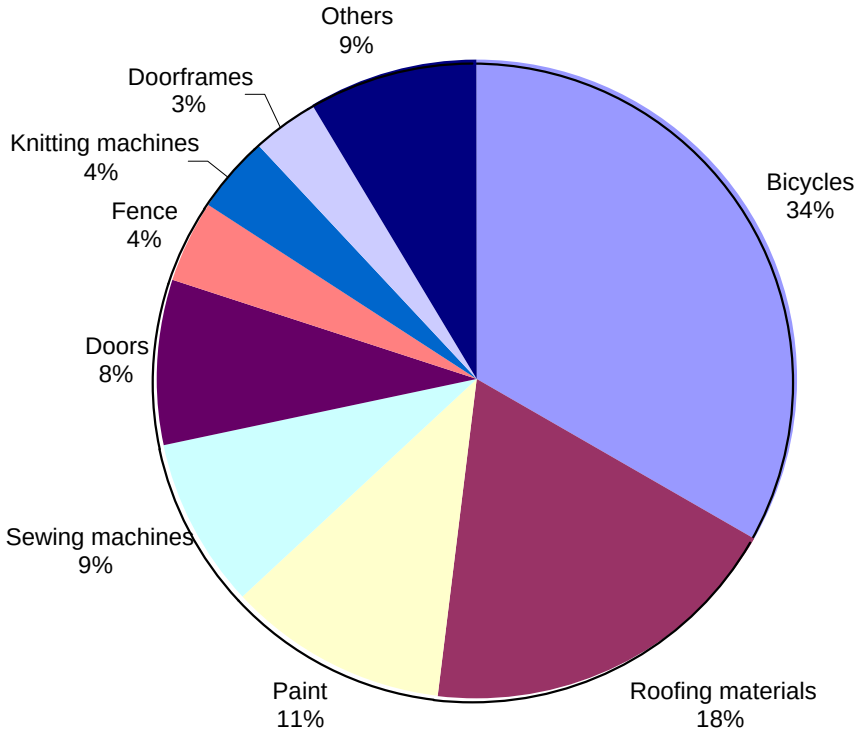
Bedding and Soft Furnishings - % Share



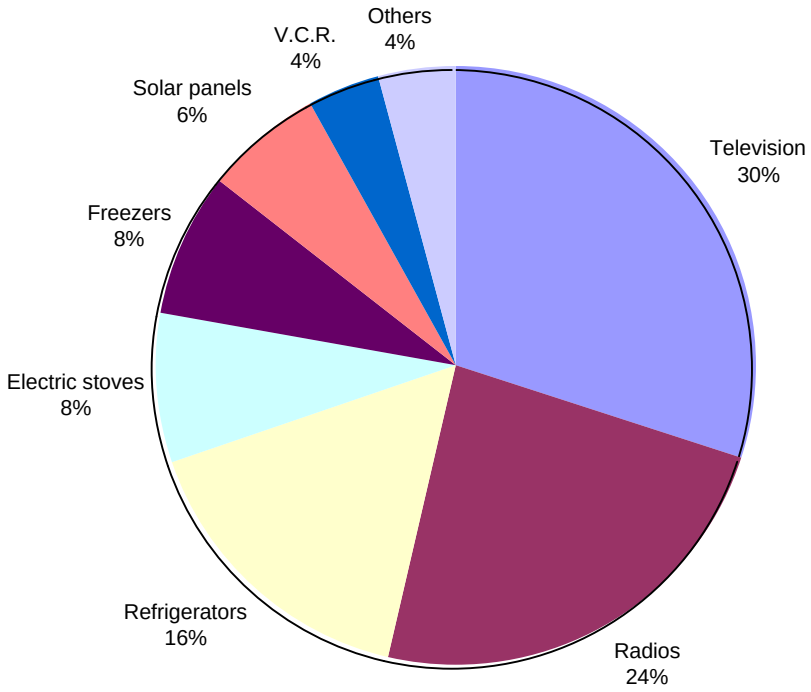
Furniture - % Share

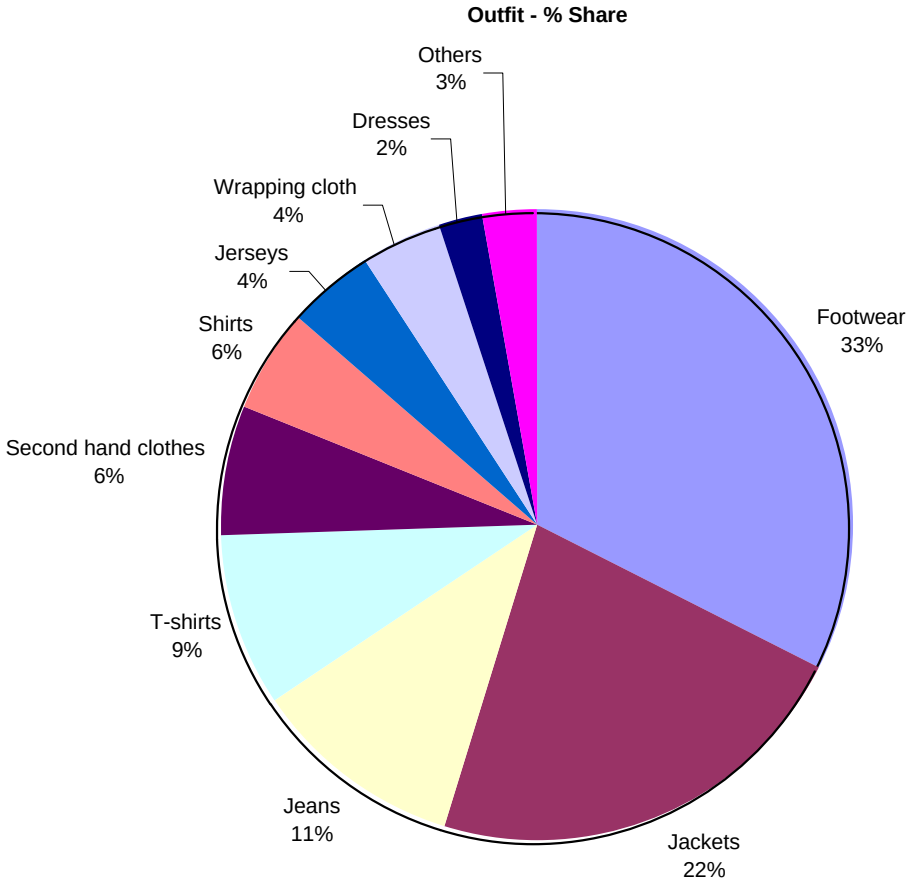


Industrial Goods - % Share

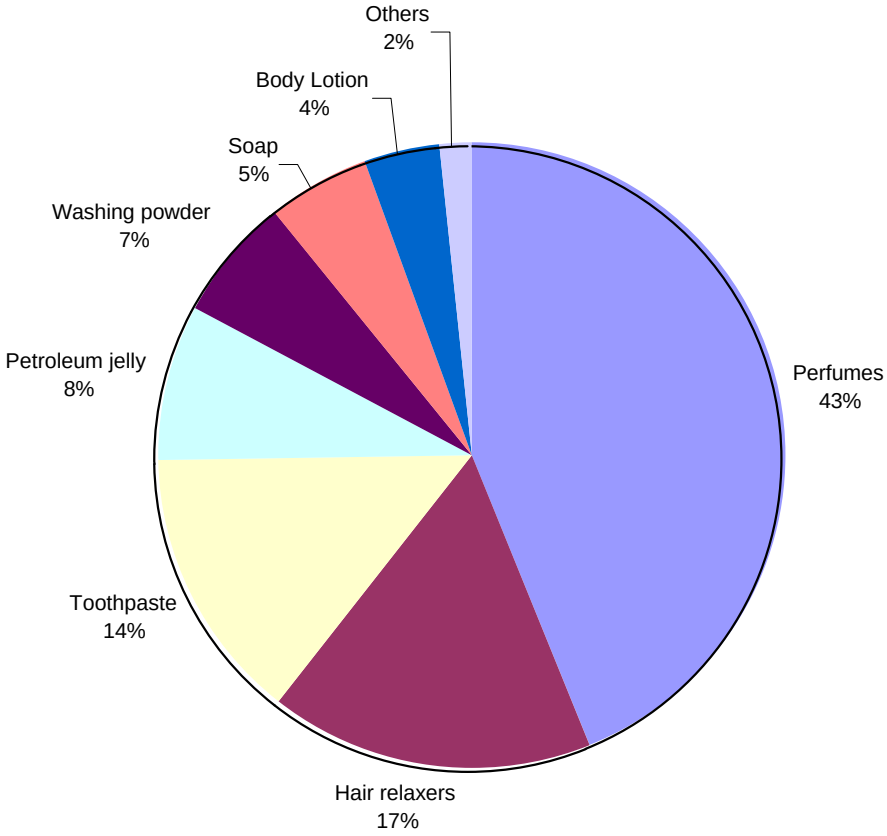


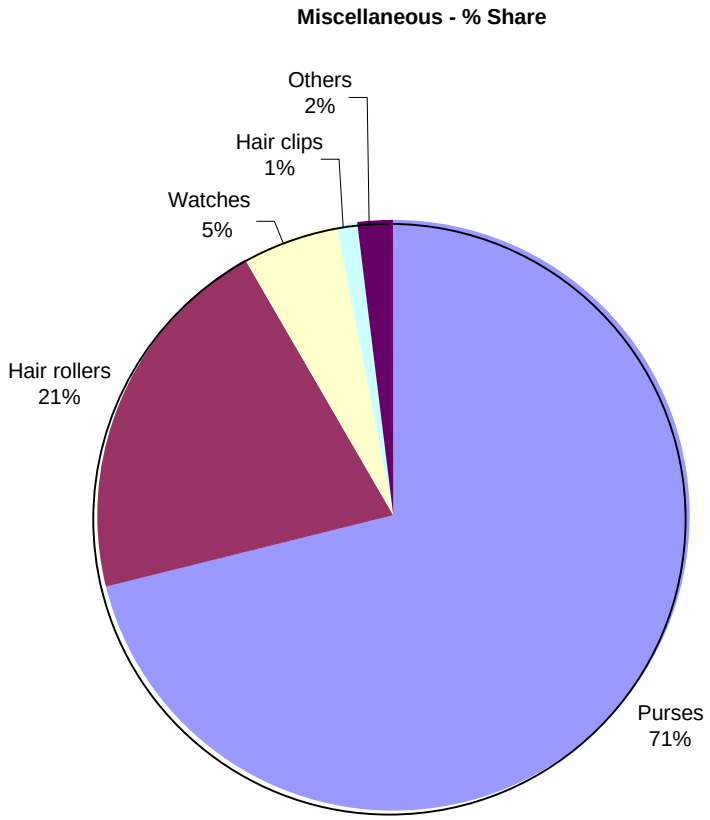
Electrical Appliances, Electronics and Accessories - % Share

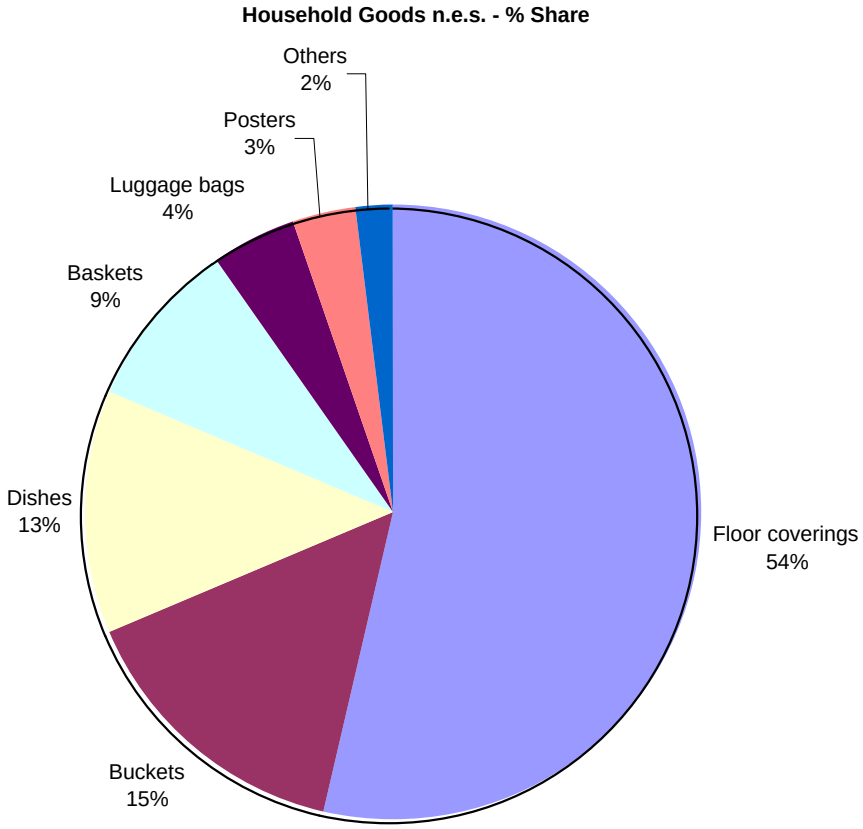



Outfit - % Share
Others
3%
Dresses
2%
Wrapping cloth
4%
Jerseys
4%
Shirts
6%
Second hand clothes
6%
T-shirts
9%
Jeans
11%
Jackets
22%
Footwear
33%

Toiletries and Cosmetics - % Share




Miscellaneous - % Share
Others
2%
Hair clips
1%
Watches
5%
Hair rollers
21%
Purses
71%


Household Goods n.e.s. - % Share
Others
2%
Posters
3%
Luggage bags
4%
Baskets
9%
Dishes
13%
Buckets
15%
Floor coverings
54%

ANNEX F. ESTIMATES OF UNRECORDED CROSS-BORDER TRADE BETWEEN MOZAMBIQUE AND HER NEIGHBORS

SD Publication Series
Office of Sustainable Development
Bureau for Africa

Estimates of Unrecorded Cross-Border Trade Between Mozambique and Her Neighbors

Jose Luis Macamo
World Vision International – Mozambique

Technical Paper No. 88
June 1999

USAID

Executive Summary

BACKGROUND: ECONOMIC PROBLEMS AND STRUCTURAL ADJUSTMENT

Despite the introduction of the relatively successful Economic and Social Rehabilitation Program (ESRP) sponsored by the IMF and World Bank under the Structural Adjustment Programs (SAPS) in 1987, Mozambique still faces numerous socio-economic problems. Among them are: an unstable GDP growth rate; the unstable condition of two digit inflation; decline and stagnation of agricultural and industrial output and a poor commercial network; an unsatisfactory to moderate export performance; an increasing and unsustainable foreign debt; and growing **unemployment**.

Other than the economic rehabilitation measures undertaken under SAPS, there are no policies specifically designed to address trade issues in Mozambique. In the absence of sectoral trade policies, the government has been intervening in trade matters by setting up regulations governing enterprises involved in trade. The creation of a government parastatal for grain marketing (ICM) and the setting of pan-territorial prices (which evolved from fixed to minimum and reference prices) are some of the interventions. In late 1995, the government put in place its first agrarian policy, but it is too soon to assess its impact on regional trade.

[1] The statistics and other statements made in that paragraph refer only to the 1987 to 1995 period. The economy was reportedly making positive improvements in subsequent years, but the detailed figures were not available to the author at the time of writing this report.

JUSTIFICATION FOR SURVEYING INFORMAL CROSS-BORDER TRADE

Official trade between Mozambique and the majority of her neighbors is insignificant compared with trade between Mozambique and the developed world. However, there have been reports of increasing unofficial trade between Mozambique and her neighbors. A number of factors have contributed to this phenomenon of increased unofficial regional trade. These factors include tariff and non-tariff barriers. Informal cross-border trade (ICBT) has evolved over time and constitutes one of the main ways of overcoming barriers to formal regional trade. Although its existence is known, its magnitude and mode of functioning have never been documented. This lack of documentation leads to the recording of misleading figures in the national accounts. As a consequence of inappropriate trade statistics, wrong policies are pursued and poor regional trade strategies are formulated.

It was, therefore, found necessary to try and explore the extent to which informal cross-border trade was being carried out and the impact of this trade both nationally and regionally. The overall objective of the study was thus to fill this gap by generating qualitative and quantitative information about ICBT and to evaluate its impact on national and regional food security.

THE METHODOLOGY

Informal cross-border trade was assessed over a period of 12 months (December 1995 to November 1996) through observation of unrecorded goods crossing the 10 most active sites along Mozambique's

borders. Border monitoring was supplemented by a baseline survey of informal trade practitioners and the market functions they perform.

SUMMARY OF BASELINE SURVEY RESULTS

The results of the baseline survey which was carried out between January and March 1996 indicate that male adults dominated the informal cross-border trade between Mozambique and her neighbors. The majority of the traders were literate and resided in Mozambican border towns. Most of these traders lacked formal employment, were small scale traders and initially invested minimally using credit from informal sources.

Business transactions were carried out predominantly on a cash basis with currencies of Mozambique's trading partners being preferred. Although there were risks associated with using parallel money markets which were readily available at active border sites, obtaining foreign currency from official sources was cumbersome and had legal limitations. The demand for and supply of foreign exchange influenced the parallel market exchange rates. Information regarding exchange rates was mainly obtained from transporters and travelers.

The mode of transport depended on the volume of commodities and distances of haulage: the longer the distance, the more sophisticated the means of transport. Head/hand loads, hand carts and bicycle transportation were extensively used as means of crossing the border with a view to avoiding tariff costs. There was widespread use of small agents and transporters familiar with border areas and who specialized in methods of evading the customs system.

A common feature among most of the informal traders was dealing in a few commodities each time in order to avoid payment of customs duties as well as to reduce transport and storage costs. Usually, the small quantities of goods formed part of a larger consignment meant to be assembled after crossing the border. As a result, the number of people transporting goods across the border was larger than the number of traders themselves. Economies of scale were realized through group hire of transport.

Storage facilities were minimally used by informal traders. Typically, storage was only used when traders could not sell their goods on the same day. Storage was not used as a deliberate effort to speculate on prices. The majority of the traders used their own storage facilities which, in most cases, were rudimentary structures for multiple uses.

In addition, there was no systematic information generation and dissemination through formal channels for use by the informal traders. Word of mouth was the main mode of information generation and dissemination. However, some of the informal traders knew what to buy and sell based on past experience and were therefore able to react quickly to changes in demand and supply conditions.

SUMMARY OF BORDER MONITORING RESULTS

Goods informally exchanged along the borders of Mozambique were, for purposes of this study, basically of two types; agricultural commodities and non-agricultural goods. Examples of agricultural commodities include sugar, maize, prawns and fish, meat, peanuts, Irish potatoes, beans and vegetables. Among the non-agricultural goods traded are beer, shoes, wood products, building materials, bicycles, bicycle and car parts, and electrical goods.

The magnitude and direction of informal trade between Mozambique and her immediate neighbors was not uniform due to considerable differences in agro-climatic conditions between the northern and southern regions of Mozambique. These differences were also as a result of the comparative advantage as dictated by the level of production, commercialization network, storage and processing of food as well as differences in industrial capacity and infrastructural development.

Informal trade between Mozambique and her neighbors was predominantly agricultural, with Mozambique being a net importer of both agricultural

and non-agricultural goods. A discussion of ICBT between Mozambique and specific trading partners follows.

Swaziland

Swaziland was by far the most important trading partner for Mozambique. Swaziland informally exported agricultural products estimated at US$32.2 million to Mozambique against imports valued at more than US$18 million. Mozambique's major informal agricultural imports from Swaziland were sugar (US$16.4 million), meat (US$6.8 million), peanuts (US$2.4 million) and maize flour (US$1.4 million). The demand for sugar outstrips supply in Mozambique mainly as a result of the civil war which ravaged the sugar industry. The same can be said of meat which is produced below consumption requirements. Maize flour has been an important informal import from Swaziland and, during the 1995/96 period, 3,900 metric tons of that commodity were imported. Agricultural exports to Swaziland were limited to prawns (US$15.3 million) and wood products (US$11.3 million).

Among the major non-agricultural goods imported from Swaziland were shoes (US$6 million), building materials (US$2.6 million), kitchenware (US$4.2 million), edible oils and margarine (US$1.2 million) and beer (US$2.8 million). The main informal, non-agricultural exports were limited to kitchenware, which has an insignificant value. Total value of trade in non-agricultural goods was US$31 million. Mozambique's overall informal exports and imports amounted to about US$31 million and US$51 million, respectively, with trade favoring Swaziland by about US$20 million.

In 1996, about 90 percent of the total value of trade (both formal and informal) between the two countries was unrecorded. Formal exports were less than one percent of informal exports and formal imports were about 20 percent of informal imports.

South Africa

South Africa was the most important trading partner of Mozambique after Swaziland. Trade in agricultural commodities moved in both directions but favored South Africa which exported goods worth US$18.8 million against imports valued at about US$1 million. Major informal imports of agricultural products into Mozambique included horticultural crops – vegetables, Irish potatoes and fruit – with a value of US$7.7 million, animal products – eggs and milk – valued at US$7.2 million and maize grain (US$1.4 million). There was considerable fluctuation in the volume of trade in agricultural commodities but there were no changes in the direction of trade.

Beer (US$3.7 million), vehicle and bicycle parts (US$1.4 million), building materials (US$1.3 million), and electrical and kitchenware (US$2.5 million) imports into Mozambique dominated trade in non-agricultural goods between the two countries. Insignificant quantities of clay and aluminum pots, wood and handicrafts were exported to South Africa. The total informal trade in non-agricultural commodities between the countries amounted to US$13.7 million, with imports from South Africa comprising US$13.3 million.

Overall informal imports and exports between the two countries amounted to about US$32 million and US$1 million, respectively, implying a negative trade balance for Mozambique. Based on 1996 official figures and border monitoring results, ICBT represented about 10 percent of the total (formal and informal) trade between these two countries.

Zimbabwe

As one moves from the south to the central region of Mozambique, a sharp decline in informal imports of agricultural goods is observed due to the relatively high potential in agricultural production in the central region compared with the southern region.

The major agricultural imports from Zimbabwe were eggs and milk (US$1 million), sugar (US$0.5 million) and fish (US$0.2 million). The main agricultural export to Zimbabwe was fish which has an insignificant value. The overall trade in agricultural commodities amounted to US$2.5 million with imports comprising US$2.4 million.

Trade in industrial products between the two countries was estimated at US$5.2 million with imports into Mozambique valued at US$4.9 million.

Major imports included beverages – beer and soft drinks – worth US$1.9 million, cigarettes (US$1.9 million) and textiles (US$0.7 million).

Unexpectedly, Mozambique imported large quantities of fish from Zimbabwe despite having a long coastline, with Sofala Bay being rich in fish resources. This has been attributed to the preoccupation of Mozambique with the exploitation of prawns for export. Poor infrastructure for preservation and domestic distribution were also constraints in the fish industry in Mozambique.

Overall informal trade between the two countries was approximated at US$7.7 million with imports into Mozambique accounting for US$7.3 million while exports comprised only US$0.4 million. This indicates a negative trade balance for Mozambique of US$6.9 million. Informal cross-border trade represented about 16 percent of the total value of trade between these two countries.

Malawi

Informal trade in agricultural goods with Malawi showed movement in both directions but trade favored Mozambique whose exports were estimated at more than US$1.2 million while its imports were valued at US$0.9 million. Major exports to Malawi were food grains – maize and beans – valued at US$0.8 million while imports involved small amounts of sugar, food grains and fruit.

Informal exports of maize grain from Mozambique to Malawi reflected Mozambique's comparative advantage in terms of production as determined by agro-climatic conditions. On the other hand, Malawi has comparative advantage in terms of storage and processing. Consequently, maize grain was being sold to Malawi immediately after harvesting but a small proportion of the same maize, in the form of both grain and flour, was re-imported into Mozambique in the pre-harvest period when maize stocks are exhausted. Although there was a high demand for food grains in the urban centers in the southern region, the supply from the northern region could not be effected due to transportation problems (availability, reliability and cost). The producers therefore found a foreign market (Malawi) to be more lucrative.

In regards to trade of non-agricultural goods, imports into Mozambique were largely soft drinks and beer (US$0.75 million), shoes (US$0.62 million) and vehicle and bicycle parts (US$0.16 million). Exports of non-agricultural goods were limited to vehicle and bicycle parts, electrical goods and wood, all in insignificant amounts. Except for wood, all these products were re-exports.

Informal trade between Mozambique and Malawi amounted to US$4.2 million with imports comprising 67 percent (US$2.8 million) of that trade. Overall informal trade balance favored Malawi by US$1.4 million. A comparative analysis of formal and informal trade shows that the latter represented about 26 percent of the total value of trade between these two countries, while informal exports comprised 54 percent of the total exports.

Zambia

Mozambique's trade with Zambia showed moderate informal imports of mangoes, meat, vegetables, shoes, electrical goods, vehicle and bicycle parts while informal exports to Zambia were limited to maize, seed and beans. Informal trade in agricultural products amounted to US$0.34 million with exports to Zambia comprising US$0.18 million of that trade. The value of non-agricultural goods was estimated at US$0.3 million out of which exports constituted US$0.04 million. The depressed trade with Zambia was due to the remoteness of the region neighboring Zambia, which has a small population.

Overall informal exports and imports were valued at over US$0.2 million and US$0.4 million, respectively, indicating a negative trade balance for Mozambique. Informal cross-border trade represented about 67 percent of the total value of trade between these two countries.

Tanzania

The scenario changes completely as one moves from southern to northern Mozambique regarding informal trade in agricultural commodities. Although food commodities moved in both directions, informal trade

in agricultural commodities was dominated by exports of prawns and fish (0.98 million), fruit and vegetable (US$0.46 million) and food grains (maize and beans) amounting to US$0.14 million), from Mozambique to Tanzania. Mozambique exported food products worth US$2.2 million while its imports were estimated at US$0.3 million.

The reasons for this scenario are the problems of road infrastructure on the Mozambican side compounded by the unreliable road and sea transport as well as the remoteness of major consumption centers in Mozambique with respect to agriculturally high potential areas in the northern parts of the country. These conditions entail high transportation costs.

Sugar and fish were the only food products exported from Tanzania to Mozambique, although in small quantities. Almost all the sugar exports from Tanzania to Mozambique are believed to have originated from Malawi. Other food imports comprised corn flour, rice and milk.

Trade in non-agricultural commodities between Mozambique and Tanzania was dominated by re-exports from a third country. Informal imports comprised shoes (US$1.7 million), electrical and kitchenware (US$1.3 million), and vehicle and bicycle parts (US$0.51 million). Others included textiles, cigarettes and soft drinks. On the other hand, the major non-agricultural exports to Tanzania were wood products. Informal trade in non-agricultural products was, however, in favor of Tanzania whose exports to Mozambique amounted to over US$4.3 million against imports valued at US$1 million.

Overall informal exports to Tanzania amounted to about US$2.95 million compared to imports valued at US$4.64 million. Informal cross-border trade represented about 65 percent of the total value of trade between these two countries.

In summary, the results show that Mozambique is dependent on her immediate neighbors for agricultural food products particularly in the southern part of the country. But as one moves to the northern region, there are decreasing imports of agricultural goods and increasing exports. It can be concluded that there was a predominance of imports of value-added goods into Mozambique, enormous imports of food commodities from the neighbors in the south and considerable exports of food commodities from the northern region to the neighbors. The total trade in agricultural commodities was estimated at over US$77 million with imports taking a larger proportion of about US$55 million. The value of informal trade in non-agricultural products was put at about US$58 million with imports comprising over US$43 million.

The total informal exports from Mozambique to all her immediate neighbors amounted to US$37 million while imports were valued at about US$98 million. The overall trade balance was thus negative for Mozambique by about US$61 million.

DETERMINANTS OF ICBT IN MOZAMBIQUE

A major feature of ICBT is that it is practiced by both small and large commercial traders, the latter usually capitalizing on the rent seeking habits of public officials in charge of immigration and customs at the border crossing points. The majority of the small ICBT practitioners were engaged in the business either because of the lack of a better alternative income source or were employed but needed additional income to push them through the hard economic times occasioned in part by the structural adjustment programs under the aegis of ERP. In spite of the steady recovery in many social and economic spheres following termination of the civil war in Mozambique, many people still remain vulnerable to poverty and food insecurity. Such people often end up engaging in petty trade in the urban centers or across the borders. These individuals are indeed indispensable to the growing number of consumers who satisfy their basic needs through the small packages brought closer to their homes by the informal traders. ICBT thus entails an interaction and mutual reinforcement between a "cheap labor supply push" and a "low income demand pull. The former stems from a combination of increasing unemployment and the search for alternative or complementary income earning opportunities. The latter results from an increasing number of poor

consumers without purchasing power for goods offered by the formal sector. This phenomenon is compounded in the northern provinces which lack adequate physical infrastructure and commercial networks. The active informal trade between these provinces and Malawi is, to a large extent, determined by these two factors as well as by the high demand for food commodities that now exists in that country.

Informal cross-border trade also reflects comparative advantage in terms of production, processing and storage of agricultural goods as well as in the industrial sector. The southern neighbors of Mozambique, namely, South Africa and Swaziland, have a comparative advantage in both agricultural and industrial manufacturing. These countries serve the food deficit region of southern Mozambique. In the northern region, Mozambique has a comparative advantage in maize production but not in storage, processing and trade. This is reflected, for example in the movement of maize grain from Mozambique to Malawi and maize flour from Malawi to Mozambique.

Other factors influencing ICBT are high customs duties coupled with weaknesses in customs administration. The former results in widespread attempts to beat the system while the latter is expressed in the charging of unofficial rents and harassment of informal traders. Social hardships caused by many years of war and disenchantment stemming from past and present economic performance are likely to affect public morality, including the attitude of public officials.

Lastly, this form of trade can also be seen as a response to unfavorable agricultural and macro-economic policies such as the enforcement of minimal producer prices on the Mozambican side and uncoordinated price, tax and customs reforms within the region.

CONTRIBUTIONS AND IMPLICATIONS OF ICBT IN MOZAMBIQUE

Food security: Informal cross-border trade plays an important role in food availability (through informal imports and increased agricultural productivity driven by informal exports), adequacy of food supply (by driving food from surplus to deficit areas), food supply stability (by a combination of ICBT and informal internal trade) and provides accessibility to supplies by all consumers (by providing goods at lower prices or undertaking bulk breaking of food commodities into appropriate packages).

Employment, incomes and poverty alleviation: ICBT provides an opportunity for a large number of unemployed people to earn an income more than four times the minimum salary in the formal sector.

Complementing the commercial network and opening of new markets: ICBT fills the gap left after the destruction of the commercial network during the civil war and contributes to the opening of new markets for domestic products.

Customs and tax evasion: The total revenue forgone in the 12 months of border monitoring is estimated at about US$25 million, which does not mean, however, that informal traders obtain goods on a 'duty free basis,' since they are often charged unofficial rents.

Lack of transparency in trade operations: This is reflected in the use of certain categories of informal traders by formal traders as intermediaries and the practice of charging unofficial rents to (in)formal traders.

Violation of health, sanitary and environmental requirements: Uncontrolled trade in perishable goods and their mishandling by unqualified market intermediaries not only leads to loss in quality and

wastage but may also pose health risks to consumers. Some forest resources (such as wood, firewood and charcoal) were informally exported without control and concern about environmental consequences.

POLICY IMPLICATIONS

With ICBT having positive and negative implications, the question is: What policy options can the Government of Mozambique adopt in order to enhance the positive aspects of ICBT without facilitating its negative implications? Repressing ICBT (by charging high customs duties to informal traders and allowing the continuation of the present status quo of police harassment and charging of unofficial rents) would be counterproductive to the positive aspects of ICBT for a number of reasons:

Adverse effect on food security: The consequence may be inadequate and unstable food availability, thus denying access to the majority of consumers who cannot rely on the feeble formal sector.

A loss of an important source of employment and income: These may seriously affect those without formal employment and will aggravate the food insecurity situation.

Responsibility of food distribution left to a weak formal sector: This may lead to loss of new markets for domestic products.

Furthermore, repressing ICBT in any manner would hardly help to counteract the negative aspects of ICBT as it would:

(i) lead to a low rate of adherence to the payment of customs duties by informal traders (especially if the costs of evasion through use of informal routes and payment of unofficial rates were lower than official rates) and would require costly mechanisms to implement compared to its potential benefits;

(ii) reinforce lack of transparency in trade operations by encouraging the charging of unofficial rents by customs officials and stimulating smuggling; and

(iii) contribute to increased health and sanitary requirement violations and would stimulate negative environmental effects of ICBT as many informal traders would respond to repressive measures by using informal routes and switching to the trade of forest and other resources.

With repression being counterproductive, liberalization of ICBT should be effected by a gradual introduction of customs and tax rates that are lower than the costs of evasion, including payment of unofficial rents. This would represent a sufficiently attractive incentive to informal traders to declare their goods especially if such policy actions are supported by improved infrastructure (particularly road networks) and availability of foreign exchange at the border posts.

The determination of appropriate levels of customs or tax rates applicable to informal traders should be a subject of a follow-up study. Such a study should ideally be comprehensive enough and be based on comparative analysis of tariff rates officially payable and the cost of evading such tariffs. Any proposed new tariff rates should be based on a cost-recovery principle. The adherence of informal traders to new rates and the attitude of customs officials should be carefully monitored.

ANNEX G. UNRECORDED CROSS-BORDER TRADE BETWEEN TANZANIA AND HER NEIGHBORS

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Unrecorded Cross-Border Trade Between Tanzania and Her Neighbors

Implications for Food Security

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Executive Summary

INTRODUCTION AND BACKGROUND

In the mid-1980s, Tanzania's economy was characterized by stagnant and declining output, passive exchange rate management, declining exports, reduced import capacity, foreign exchange demands for government expansion, quantitative restrictions on all imports, *de facto* rationing of most traded goods and widespread domestic price controls. Consequently, there was a growing parallel market for both imports and exports. This situation forced the government to institute liberalization measures which began in 1984 and the Economic Recovery Program (ERP) adopted in 1986 and expanded by the Economic and Social Action Program (ESAP) in 1989 across a broad range of sectors and policy instruments. Despite the macroeconomic changes that have taken place, normal official trading is still constrained by institutional and administrative bottlenecks such as high trade taxes and bureaucratic import/export procedures thus encouraging informal cross-border trade (ICBT) between Tanzania and her neighbors. In addition, the process of privatization has been extremely slow and the country's trade policies have not been harmonized with those of the neighboring countries. Rent seeking practices still abound at the official border points and poor infrastructure still militates against both internal and external trade.

Because ICBT passes through undesignated routes, estimates of its economic activities are rarely included in the national accounts. This omission could easily lead to faulty policy recommendations, particularly those based on estimates of the country's gross domestic product (GDP), savings, consumption, productivity and balance of payments. As part of the effort to begin to understand and quantify the role of unofficial trade in eastern and southern Africa, TechnoServe, on behalf of USAID's Regional Economic Development Support Office in Nairobi, Kenya (REDSO/ESA) and the Africa Bureau's Productive Sector Growth and Environment Division in the Office of Sustainable Development (AFR/SD/PSGE), commissioned a survey of unofficial trade between Tanzania and the neighboring countries in August 1995. The broad objective of the study was to provide qualitative and quantitative information about ICBT and to assess its determinants and linkages to food security.

THE METHODOLOGY

Data was collected through border observation (monitoring) at a sample of sites selected on the basis of practical considerations such as volume of trade, security, communication, transport links, availability of supporting institutions and personnel. The sites selected for intensive monitoring catered for both inland and lake (Tanganyika, Nyasa and Victoria) routes. At these sites, border monitoring was conducted by applying a census approach in order to cover all the major agricultural and industrial commodities during two weeks randomly selected from each month over a period of twelve months. Estimated average monthly trade volumes derived from the observed figures were used to compute the annual volume and value of the unrecorded trade flows.

In addition to information derived from the border observation technique, one baseline survey was conducted mid-way through the monitoring period to provide information on trader characteristics, commodity prices, costs, exchange rates, sources of information, market functions, and origin/destination of goods. Descriptive statistics were used to evaluate the significance and implications of trade policies and other constraints faced by informal cross-border traders.

TRADING PRACTICES

The results show that informal cross-border trading along the Tanzania borders was dominated by male adults most of whom resided in the border towns. Informal trading was not only confined to the traditional exchange of goods and services between communities sharing a common border but also involved commodities intended for re-export and re-sale in distant urban and rural areas. Traders dealt in small quantities of a variety of commodities as a risk management strategy against detection and confiscation by customs authorities. There were hardly any specialization and exploitation of economies of scale.

Since the availability of physical resources is a function of credit availability, it is likely that inadequate access to formal credit facilities minimized traders' ability to own physical resources such as trucks and storage facilities. Traders therefore relied on hired transport and rented storage facilities.

Transactions were carried out on a cash basis with barter trade being used only occasionally. Traders met their foreign exchange requirements mainly from parallel markets. Money changing activities were not repressed at the borders and one observed open trade in local currencies. It was also established that convertible currencies played an insignificant role in cross-border trade transactions. High tariffs and non-tariff barriers, such as long and cumbersome documentation procedures and harassment of the traders by the agents of economic police, were some of the factors constraining cross-border trade. Other constraints were unstable agricultural commodity prices, high transportation costs and lack of working capital.

VOLUME AND DIRECTION OF INFORMAL TRADE: IMPLICATIONS FOR FOOD SECURITY

Informal cross-border trade activities between Tanzania and the neighboring countries were found to be significant and involved exchange of large volumes of commodities. Four categories of unrecorded goods were identified: agricultural food commodities–mainly maize, rice, beans, sugar, wheat flour and root crops; industrial manufactures–toiletries, beer and spirits, cooking fats/oils, soft drinks, textiles (both new and used), construction materials, salt, electronics, petroleum products and car and bicycle parts; forest resources–charcoal and timber; and water resources which included all kinds of fish species and prawns. Tanzania's exports comprised mainly agricultural food commodities, fish, timber and charcoal. However, the country's imports derived from value added services from the neighbors' industrial sector, or re-exports from a third country.

Most of the traded commodities were both imported and exported. This could be due to the efficiency of the market which is responsive to the prevailing conditions of supply and demand. Tanzania is a vast country with areas of high agricultural potential far removed from the country's main consumption centers. The long distances involved between the main agricultural producing zones and the internal markets, coupled with poor infrastructure and high transportation costs make foreign markets attractive for both producers and consumers. Such distances render the notion of food self-sufficiency and restricted cross-border trade unworkable. A summary of the estimates of informal trade with the country's neighbors is presented below.

Kenya

The direction and composition of trade between Kenya and Tanzania conform to the common belief that Kenya has a comparative advantage in industrial manufacturing, but its perennial food shortages make it a net importer of agricultural food commodities from her neighbors including Tanzania. The total trade in agricultural food commodities between the

two countries was estimated at US $6.3 million, with a larger proportion (US $4.3 million) composed of exports. Of the total trade in industrial manufactures estimated at US $12.5 million, imports comprised US $9.6 million. The overall trade between Tanzania and Kenya thus amounted to US $18.8 million, with a trade balance in favor of Kenya by US $4.4 million.

Uganda

Coffee had the highest value among informally exported agricultural exports to Uganda with a value of US $1.1 million, representing 48 percent of agricultural exports to Uganda. Other important agricultural exports observed included rice, sugar, maize, maize flour and bananas. Agricultural food commodity trade with Uganda was minimal.

Among the leading industrial manufactured exports to Uganda during 1995/1996 were petroleum products which were estimated at US $0.4 million. It is worth noting that all major exports except beer, spirits, soft drinks, charcoal and timber were re-exports. Although the two countries traded in both new and used textiles, Uganda was the net exporter. Uganda was also a net exporter of a number of other minor goods such as toiletries, sweets, biscuits and salt. The overall trade between Tanzania and Uganda was estimated at US $4.5 million, with a trade balance favoring Tanzania by US $1.5 million.

Malawi

The major agricultural exports to Malawi were beans and root crops estimated at 327 metric tons (US $117,000) and 342 metric tons (US $51,000), respectively. The main agricultural import from Malawi was 5,043 metric tons of sugar valued at US $3 million. The overall trade in agricultural commodities amounted to US $3.8 million, with imports comprising US $3.5 million.

Trade in industrial products between the two countries was valued at US $1.9 million, with exports estimated at US $1.1 million. Aggregate trade between the two countries was worth US $5.7 million, with the trade balance against Tanzania by US $2.9 million.

Zambia

Substantial amounts of agricultural food commodities estimated at US $3.3 million were exported to Zambia from Tanzania. The goods comprised maize, beans, rice, root crops and wheat flour. Zambia's main agricultural export to Tanzania was sugar estimated at 7,000 metric tons (US $5.5 million) Sugar constituted 98 percent of the total US $5.7 million of agricultural commodity imports from Zambia. There were, however, unsubstantiated reports that the sugar imported from Zambia originated in Malawi.

Tanzania exported industrial goods worth US $0.4 million to Zambia while at the same time importing goods estimated at US $0.2 million. Trade in industrial manufactures with Zambia was not substantial compared with other neighboring countries. The major exports were bar soaps, toilet papers, cooking fats, soft drinks, bicycle and car parts and petroleum products; while the imports from Zambia comprised cosmetics, soap, toothpastes and new textiles. Part of the textile trade comprised re-exports from the Democratic Republic of Congo.

All in all, the total trade in both agricultural and non-agricultural commodities was estimated at US $9.7 million, with imports comprising US $5.9 million. Tanzania was thus a net importer of commodities from Zambia by US $2.1 million.

Democratic Republic of Congo (DRC)

The Democratic Republic of Congo (DRC) was found to be the largest informal trading partner of Tanzania. About US $78 million worth of agricultural commodities were exported to DRC but fish estimated at 53,000 metric tons (US $ 66 million) was the major export followed by petroleum products valued at about US $ 55 million. Part of the latter commodity may have been destined for Rwanda and Burundi whose regular supply routes were disrupted by civil strife. Tanzania also exported maize, wheat flour, rice beans and root crops to DRC.

The large volume of unofficial food exports to DRC was due to the void left by the once vibrant official trade which was the domain of the collapsed state-controlled organizations. The poor state of infrastructure in east-

ern DRC means that the region is cut off from the relatively developed western part of the country, necessitating huge food imports from its neighboring countries of Tanzania and Uganda.

The bulk (87 percent) of Tanzania's industrial imports from the Democratic Republic of Congo valued at US $76 million comprised new textiles. Other imports included cosmetics, margarine, and beer.

Mozambique

Estimates of trade with Mozambique show that food commodities moved in both directions but the trade favored Mozambique which exported goods worth US $2.2 million while its imports were estimated at about US $0.3 million. The major food imports are comprised of fish and prawns (US $0.98 million), horticultural crops–fruit and vegetable–(US $0.46 million) and food grains–maize and beans–(US $0.14 million). Tanzania's informal exports to Mozambique were limited to sugar (believed to be re-exports originating from Malawi) and a few other goods such as maize flour, rice and milk.

Trade in non-agricultural commodities between Tanzania and Mozambique was dominated by re-exports from a third country. Informal trade was, however, in favor of Tanzania, whose exports to Mozambique amounted to over US $4 million, against imports valued at about US $1 million. Informal non-agricultural exports to Mozambique constituted mainly shoes (US $1.7 million), electrical and kitchen ware (US $1.3 million), and vehicle and bicycle parts (US $0.51 million). Others included textiles, cigarettes and soft drinks. Most of these commodities originated from the Middle-East and Southeast Asia. On the other hand, the major informal non-agricultural imports from Mozambique were wood products.

INFORMAL TRADE BALANCE AND COMPARISON WITH FORMAL TRADE

The overall informal cross-border trade between Tanzania with all her neighbors for both agricultural and non-agricultural commodities amounted to US $278 million during the 1995/1996 period. Total informal agricultural exports including fish were estimated at over US $88 million, while imports were valued at about US $14 million. For industrial manufactures, including forest resources, total exports were worth over US $87 million, while imports totaled US $88 million. Therefore, the total value of informal imports during 1995/1996 was about US $102 million, while exports totaled US $176 million. Thus, the overall trade balance was in Tanzania's favor by over US $74 million. With reference to specific countries, Tanzania's informal cross-border trade balance was positive with respect to Uganda, the Democratic Republic of Congo and Mozambique, and negative with respect to Kenya, Zambia and Malawi.

According to the IMF's Direction of Trade Yearbook (1996), Tanzania's annual official trade with all countries (both exports and imports) for the year 1995 was US $2,378 million which was significantly higher than the value of unrecorded trade for the year 1995/1996, estimated at US $278 million. During the same period (1995), Tanzania's official regional trade (trade with the regional neighbors) amounted to US $204 million or about 73 percent of the estimated ICBT. Overall, Tanzania's unrecorded trade was 58 percent of the total (both official and unofficial) trade with her regional neighbors.

POLICY IMPLICATIONS AND CHALLENGES FOR INCREASED FORMAL TRADE

The study concludes that the substantial trade that occurs unofficially along Tanzania's borders has far reaching policy implications on GDP, government revenue and regional food security. The existence of unofficial trade on a significant scale implies that the

governments are not reliably informed about their trade situation, and that the revenue loss to the exchequer could be enormous.

The existence of large volumes of unrecorded trade of agricultural goods suggests that there is an important link between agriculture and regional cross-border trade. However, for this form of trade to thrive, there must be tradable surpluses. This calls for increased agricultural productivity. Agricultural productivity and development must be vigorously pursued in the region for at least four reasons: (i) to meet food needs driven primarily by population and income growth; (ii) to alleviate poverty through employment creation and income generation; (iii) to stimulate overall economic growth; and (iv) to conserve natural resources. The results of this survey should assist policy makers in Tanzania to appreciate the positive aspects of the link between agricultural productivity and trade on the one hand, and that between cross-border trade and national food security.

Informal cross-border trade stabilizes food availability by improving the supply through importation and increased production through export. It provides employment and hence income, as most of the informal traders are not gainfully employed in the formal sector where opportunities continue to dwindle. This form of trade also complements formal trade in the agricultural marketing system, and enhances efficiency in marketing by providing competition to the official trade.

Large scale unrecorded trade has important fiscal implications. For example, government budgets may be adversely affected since most developing countries derive their revenue from taxes, part of which comes from international trade. The biased national accounts which arise because of the exclusion of unrecorded trade could easily mislead planners particularly with respect to resource allocation and thrust of international relations and trade policies. One area of concern in this regard has been the governments' penchant for import/export bans and reluctance to liberalize cross-border trade especially at times of domestic shortfalls in production. Policy makers have consistently reneged on their regional commitments to trade liberalization thereby opening avenues for cross-border smuggling and rent seeking practices by public officials who control international trade activities.

Perceived loss of revenue has in the past proved to be a serious stumbling block in the implementation of policies aimed at cross-border trade liberalization. There are fears, at least in the minds of the region's political leadership, that more open borders may occasion undue loss in tax revenue. But such fears relate more to short term cash flows while mistakenly discounting the efficiency and economic benefits that open international trade offers. There are also fears that more open borders could encourage trade of contrabands and violations of phytosanitary requirements. Although these are valid concerns, it is contended that regional policy harmonization of standards and regulations for transit cargo could obviate the need for many of the current *ad hoc* and unilateral rules imposed by individual countries.

The prevalence of unrecorded trade in the region, even when most of the countries have undertaken trade reforms, points to a lack of political will and commitment to a favorable macroeconomic environment conducive to free intra-regional trade. Formal cross-border trading is still constrained by high tariffs and non-tariff barriers, such as long and cumbersome documentation procedures, instability of the foreign exchange rates, harassment of the traders by the agents of economic police, high transportation costs and lack of credit facilities. These bottlenecks have to be reduced, and, if possible, completely removed, in order for the regional markets to integrate and operate more efficiently.

Besides the above mentioned issues relating to trade liberalization and policy harmonization, there are infrastructural and marketing challenges to increasing regional trade and assuring a food secure region. Even in cases where price and other policy distortions do not exist, large proportions of non-tradable production still exists due to high transactions costs. Lowering of these costs through investment in improved transportation and storage infrastructure and marketing facilities may be as important in lowering food prices to consumers as increasing agricultural

productivity. The unrecorded trade statistics presented in this report emphasize the point that although cross-border trade is highly volatile, it nonetheless conforms to the theory of comparative advantage. But the poor state of infrastructure, particularly the poor road network in Tanzania, hampers producers' opportunities to expand and diversify their production by exploiting the neighboring countries' export markets. Although the required investments in infrastructural development are admittedly colossal, stakeholders strongly feel that policy makers in Tanzania ought to explore more vigorously, the alternative strategies that target infrastructure as a means of exploiting the existing comparative advantages, particularly in the area of food production and export. The current food self-sufficiency strategies, which are also the pillars of food security in the country's trading partners such as Kenya and Uganda, are short-sighted, and must be seriously reassessed in a regional rather than domestic context.

Finally, the results of this study have demonstrated that, given the right incentives, the private sector can play a very significant role in moving food from producers to consumers (even to drought-stricken lands and areas of civil strife), the political boundaries and bureaucratic constraints notwithstanding. The mistrust that appears to exist between policy makers (government) and the private sector practitioners, as well as the hindrances to trade that are persistently imposed by the latter, sometimes give the impression that these two parties have self-neutralizing views regarding economic development and social welfare. The view adopted here, and which we urge regional governments to consider seriously, is that the private sector should be enabled through a conducive macroeconomic environment and predictable policy regimes to play a more active role of intra-regional trading and income generation. The goals of national food security are indeed not incompatible with this notion, even when there are threats of domestic market failure arising from natural disasters such as droughts. Strong governments, as well as consistency and predictability of policy, are critical ingredients that the region's entrepreneurs need so desperately in order to function efficiently and for the food insecurity problem to be eradicated comprehensively.